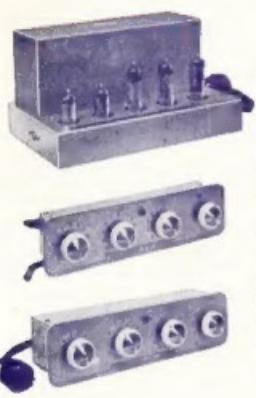


JUNE, 1960



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# AMATEUR RADIO

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## EDITORIAL



### Recommendations for an Australian Federal Communications Commission

On 5th May in the House of Representatives during Grievance Day debate, the Honorable A. Fairhall, Federal Member for Paterson (N.S.W.), directed a recommendation to the Government that consideration be given to the establishment in Australia of a counterpart of the American Federal Communications Commission, and as a first step towards this end that the Government invite to Australia one of the American commissioners to advise as to how this problem should be tackled.

The American F.C.C. is an independent body empowered to deal with all communication problems in the United States of America including the allotment of operating frequencies to the various communication services.

The Amateur Service—which vitally interests us—is administered by the F.C.C., but in a far different manner to that existing in this country. Under an independent Commission the American Amateur has considerable say in his own affairs as a recognised international frequency user. Proposals to make variations in regulations governing the operation of Amateur Stations are published in a Federal Register wherein all interested parties are invited to file comments for or against the proposal(s). The Amateurs thus given the opportunity to give expressions of opinion in matters which concern themselves.

Proposals may be originated by the American Radio Relay League (the representative body of the Amateur Service) in the form of a petition to the F.C.C. But whether such proposals are originated by the F.C.C. or the A.R.R.L., the F.C.C. issues a document of proposed rule making which is published in the Federal Register, and it is only after individual and institutional comments have been thoroughly examined by the Commissioners (who are not themselves frequency users) that any order to amend Regulations under the Communications Act is implemented.

The American Communications Act incorporates Amateur regulations along with regulations governing the operation of all other frequency users and these are legally binding until such time as they are amended by a properly constituted procedure by which the frequency users have a powerful say in their own affairs.

Because Australia is a growing Nation with a bigger voice in international affairs, its system of dealing with communications, whilst having served satisfactorily since the introduction of radio as a communication media, is fast outgrowing its usefulness and is in dire need of complete overhauling.

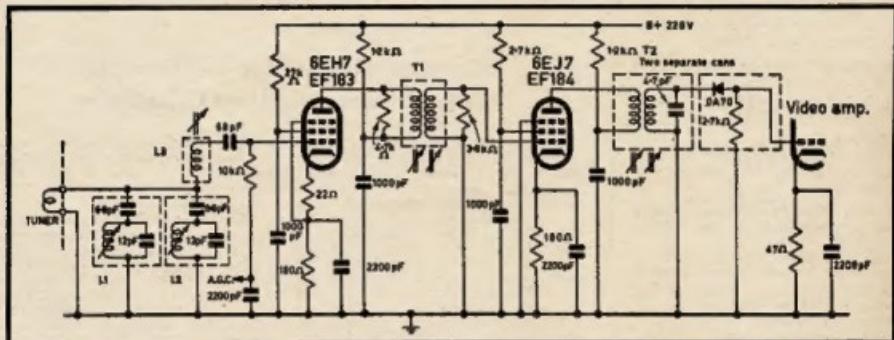
The Wireless Institute of Australia as the nationally constituted organisation representing the internationally registered Amateur Service in Australia commends Mr. Fairhall for his stand on this matter and looks forward in the hope that the Australian Government will see the wisdom of his recommendation.

In the meantime the Postmaster-General, Hon. C. W. Davidson, O.B.E., has said that he will form an Ad Hoc Committee with wide constitutional facilities so that all the interests involved with the use of frequencies will have an opportunity to present their cases. In this regard Mr. Davidson has said that the Wireless Institute of Australia will have actual representation on this Committee and not merely be invited to send an observer. The W.I.A. assures all Australian Amateurs that it will be pleased to represent their interests on this Committee when it is formed.

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$V_g2$	90V	200V
$V_g3$	0V	0V
$V_g1$	-2V	-2.5V
$I_a$	12mA	10mA
$I_g2$	4.2mA	3.8mA
$g_m$	$\dagger 12.5 \text{ mA/V}$	$15 \text{ mA/V}$
$r_a$	500 Kohms	350 Kohms
$\mu g_1 g_2$	—	60

\*  $rg_1$  ( $f=40$  Mc/s) 40 Kohms 30 Kohms

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# In Defence of Amateur Frequencies

For the information of Amateurs generally, we print herewith extracts from Hansard (5th May, 1960) indicating the support that has been given to Amateurs by Mr. Fairhall, M.H.R.; Mr. Costa, M.H.R.; and Mr. Wentworth, M.H.R.

**Mr. Fairhall (Paterson).**—Mr. Speaker, twelve months ago, the subject of the availability of frequency reservations to amateur radio operators in this country was a matter of hot concern in both Houses of this Parliament and on both sides of the Parliament. In the light of known proposals for the reduction of the frequency channels which the Postmaster-General's Department proposed to send on for consideration at the International Telecommunications Union Conference, in Geneva, last year, that was a reasonable thing. But I think it is timely and necessary to raise the question again, because, presumably, in the near future, the Government will have before it a submission from the department dealing with the results of the Geneva conference and moving for some form of ratification, as may be required. Therefore, cause a good deal of discontent over the outcome of the Geneva conference still lingers, I consider that there are some important matters which ought to be brought to the attention of the Government, and, perhaps, to the notice of the people of Australia, Sir. These matters are not confined only to amateur radio, and what has happened in this field gives rise to wider considerations.

I do not want to say much about the value of the amateur radio operator in peace and war—I think that is well understood—or, indeed, about the fact that amateur radio represents a training ground for electronic technicians in this country which is particularly valuable in view of the few opportunities available for obtaining experience of that sort. I propose also to pass lightly over the recognition given to radio amateurs, because it is well known that they are regarded as an international group, and that reservations have been made for them on an international basis by the International Telecommunications Union.

In the United States of America and the United Kingdom, amateur operators are considered of such value that the delegations sent to the Geneva conference by those countries fought hard, and, I am happy to say, retained for their amateurs the whole field of reservations for amateur operation. In the United Kingdom, amateur radio is encouraged as a source of operators for signals branches of the defence services, even to the degree that the Government provides equipment and pays something towards the cost of its maintenance. In Australia, in recent years, the president of the Wireless Institute of Australia—the organisation of amateur operators—was awarded an O.B.E.—the award of admission as an Officer of the Order of the British Empire—in recognition of the splendid service given by the amateurs of this country during floods and bush fires on many occasions when the communication

facilities provided by the Postmaster-General's Department had been disrupted for some reason.

For years past, the Australian amateur has had available to him fewer frequency channels than are available to amateur operators in other English-speaking countries. In this connection, I wish to direct attention to a statement made on 7th May, 1959, by the Postmaster-General (Mr. Davidson). He said—

... my advice—and it is the best advice—is that Australian radio amateurs do not suffer by comparison with our American friends.

That statement is demonstrably untrue, Sir, and it can readily be tested. I have done that. The useful bands available to Australian amateur operators represent only 85 per cent. of those available to the American operators. On the channels best suited to international communication, which is the very life-blood of amateur radio, they are restricted to 55 per cent. of those available to the Americans. If the Geneva conference decision is to be put into operation, including a restriction, applicable to Australia only, to which I shall refer presently, we shall be down to something like 50 per cent. of the space available to the Americans. Nor does that tell all the story, because the Australian amateur suffers disadvantages in respect of power and other matters as a result of conditions imposed on them by the Postal Department.

The point to which I wish to direct attention, and which I should like the Postmaster-General to note, is that when this matter was one of hot concern twelve months ago, honorable members on both sides of the House were given an undertaking, which I must accept as coming from the Minister's own department, that the Australian amateur would lose nothing further by way of frequency reservations unless such restrictions were demanded by the International Telecommunications Conference at Geneva.

Let me illustrate by taking one point—the band of frequencies available to amateurs on 80 metres. The Australian delegation took forward a proposal to reduce the Australian allocation from 300 kilocycles to 200 kilocycles. They put it before the conference, and we had no objection, but the conference rejected the Australian proposal. One would assume that that would be the end of that, but no, the Australian delegation then included what is called in convention parlance a "footnote". The footnote interposed into the articles of the convention the Australian restriction down to 200 kilocycle bandwidths. The inclusion of this footnote in the proceedings of the Geneva conference was, as I see it, and as many other members of this Parliament will see it, a repudiation of the undertaking given to the Parliament.

I hope that this does not indicate a state of mind in which this Parliament is to be held in contempt by a government department. I should like to hear what the Postmaster-General has to say about this. For my part, I cannot see

that this was other than a premeditated act of bad faith on the part of the administration. As such, I find it completely intolerable.

Various reasons have been put forward why Australian amateur reservations must be reduced. We have been told that there is a rising demand for frequency channels for other communication services. Of course, that is perfectly true. Quoting the Postmaster-General's own figures in relation to the aeronautical field, the applications have risen from 59 to 172; but in this field, the United States of America manage to operate 81,000 transmitters. Some of our members were concerned that if the amateur bands were not reduced, there would be no room available for the operation of bush fire radio equipment; but in the closest counterpart of this service that I could find in the American table, I find the Americans can operate no fewer than 92,000 transmitters.

This takes me out of the field of amateur frequencies altogether, and it brings up a wider question as to what is happening in frequency allocations in Australia. In times past, I have made the point that we should have a counterpart in Australia of the American Federal Communications Commission. I know that the Postmaster-General has indicated that quite shortly we are to have another committee in Australia to examine the broad question of frequencies. I want to put to the Minister two propositions: One is that we should consider the establishment of an administrative body similar to the American Federal Communications Commission, and towards that end it might not be a bad thing for the Government to invite to Australia one of the American commissioners, and to seek his advice as to how this problem should be tackled.

I put this seriously to the House and the people that, in Australia, one of our most valuable public possessions will be the ownership and availability of channels or communication in a big country; yet what have been given as the reasons for doing the things to which I have referred? We find that we, in Australia, have virtually exhausted the availability of communication channels with something under 50,000 transmitters, yet in a country of the same physical size, and having access to widths of frequencies identical with ours, the American administration is able to operate something like 1,400,000 transmitters. I say again that this is a vital matter, because I am not at all convinced that this question of frequency allocation is being administered in the public interest. When one sees a comparison of that kind—that we can operate only 4,000 transmitters in an area which can accommodate almost 1,500,000 in America—we are seriously invited to consider the efficiency of our handling of this particular problem.

But, Sir, if I may get back to the question of amateur radio, there is no sustainable reason why the amateurs of Australia should suffer further reductions in their wave bands. On the contrary, there is good reason why a

reasonable administration should restore some space that has been withheld or withdrawn without justification. Sir, I should like to have the Postmaster-General devote his attention to this matter and give me some advice as to how far we are committed by the Geneva agreement in its present form, what facilities there are for amendment or change in the conditions involved in it, and also whether the Government will look at this matter again with a view to giving some relief.

**Mr. Costa (Banks).**—I wish to support the honorable member for Paterson (Mr. Fairhall). I think that the point of view he has put to the House has the support of all honorable members. I support his protests because I believe there should be ample channels available for radio amateurs, to whom we owe quite a lot. They pioneered the radio industry in Australia and they deserve our support. I oppose the restrictions that have been suggested by the Geneva conference.

**Mr. Davidson (Dawson; Postmaster-General).**—Normally, on Grievance Day, it is not the practice for Ministers to take up any of the time of the debate. Honorable members greet that statement with noisy interjections, but if they will allow me to make a few remarks they will find that I have risen, first because I want to make a few comments in reply to the speech of the honorable member for Paterson (Mr. Fairhall), and secondly, because the honorable member for Macarthur (Mr. Jeff Bate) also asked me to make some comments on that matter and was good enough to offer me his time in this debate so that I might do so. I appreciate that action of the honorable member.

As only a few minutes remain of the time allotted for this debate, I shall not attempt to reply to all the points made by the honorable member for Paterson. He has discussed with me on many occasions the matters he has raised today. Therefore I have an understanding of his point of view, and he understands my attitude. There are some things on which we differ and some on which we agree. I differ with him in respect of the charges he has made of repudiation and bad faith and his criticism of the attitude of departmental officers. Certainly the departmental officers have not agreed with all the proposals which have been put forward by the representatives of the amateur institute, but I think it must be conceded that a good deal of co-operation and consideration has been given by the department in the matters put forward by those representatives in discussions at both Canberra and Melbourne, and also by the appointment on behalf of the institute of an observer to travel with the delegation which went to Geneva. I should also like to point out—and this point has been raised by me before—that prior to the delegation leaving, I submitted a proposal to Cabinet outlining the attitude that would be adopted by the delegation. Therefore, if there is any comment or criticism in that respect it should be directed not at the departmental officers but at myself.

I particularly want to refer, in the next two or three minutes, to the present position and to our future planning. I think that is particularly what the honorable member for Paterson wants me to do. I have just received a summary of the portion of the report of the delegation to the Geneva talks which deals with frequencies allotted to amateur radio operators. It is my intention, very shortly, to submit this report to Cabinet for its consideration, and I can assure the House and the honorable member that any decision taken will be one of policy. I cannot anticipate what that will be. But before anything further is done, I shall recommend that a committee be set up to inquire into the matters referred to by the honorable member for Paterson. I propose proceeding with that on a very wide basis. There need be no fear, first of all, that any action which the amateurs might consider would hurt them will be taken immediately or without further opportunity being given for discussion. Secondly, any committee appointed to inquire into the whole range of frequencies in Australia will have a very wide constitution so that all the interests involved in the operation of frequencies will have an opportunity to present their cases. When I say that I mean, for example, that the amateur institute will have actual representation on the committee and not merely be invited to send an observer.

The honorable member for Paterson has suggested that this investigation should be wider and that we should set out to develop something in Australia of the nature of the Federal Communications Commission which operates in the United States of America. I am not very much attracted to that proposal at present; but I would be quite prepared to have a look at it, and if necessary, discuss it with Cabinet to see whether it thinks that a committee of that nature should be established. For the present, I fancy an ad hoc committee, which would not be appointed as a permanent body, would be the best means to deal with this matter with reasonable celerity.

**Mr. Wentworth.**—My question to the Postmaster-General relates to the International Telecommunications Conference which was held last December in Geneva. Was any agreement or convention entered into on behalf of Australia, or was anything done which was in any way binding on Australia? If so, will the Minister, before we go into recess, lay on the table of the Library for the information of honorable members a copy of the undertakings which were given?

**Mr. Davidson.**—Certain determinations were made by delegates to the Geneva conference, and those determinations were noted. But there has been no ratification by this Government of any of the decisions which were arrived at. Yesterday I received a summary of that part of the overall report which dealt with amateur radio operators. It is my intention shortly to submit that summary to Cabinet for consideration and determination as to what further action should be taken. When such determination is made it is my intention to make a statement on the matter to the House.

## TECH VACUUM TUBE VOLTMETER Model PV-58

Designed to read DC, AC, Zero-Centre, RF and HV.  
AC-DC Voltage ranges: 0-1.5, 5, 15, 50, 150, 500 and 1,500 volts.  
Type HV-23 High Voltage Probe with built-in multipliers extends DC scale by a factor of 20, giving full scale readings of 0-30, 100, 300, 1,000, 3,000 and 10,000 volts.  
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**TECH Model PV-58 V.T.V.M.**  
**£19/10/0 plus 12½% Sales Tax**

**Accessories:**  
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## TMK Model MG-310 MULTITESTER

Sensitivity 20,000 ohm/V. DC  
10,000 ohm/V. AC  
0-5, 25, 100, 500, 1,000, 5,000 volts AC.  
0-5, 25, 100, 500, 1,000, 5,000 volts AC.  
DC Current: 0-1 microamp.: 0-8, 50, 500 mA.  
Resistance: 0-60K, 600K, 0-2MΩ, 2MΩ ohms.  
Decibels: Minus 20 to plus 16 db., plus 30 db.  
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300 microamp. meter.  
Ranges:  
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# SYNCHRONOUS COMMUNICATION

## PART THREE

### (iii) PRACTICAL HINTS IN BUILDING A SYNCHROBONOUS COMMUNICATION SYSTEM

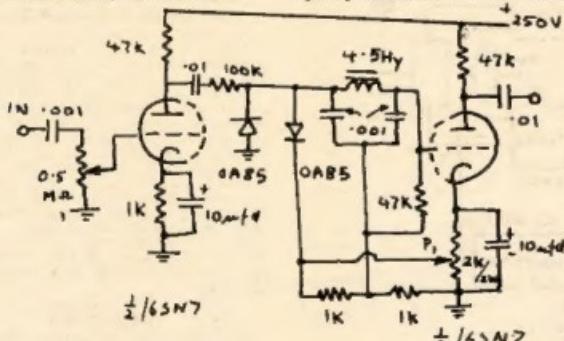
A synchronous communication system was designed and constructed, operating on a frequency of 96 Mc. (see photograph). The receiver was direct conversion and had a pull in range of  $\pm 850$  cycles, while it would follow a signal drift of  $\pm 2.1$  kc./sec. The receiver would remain locked onto a signal until the noise or interference level had increased to a point where the noise power equalled the power in one sideband of the received signal.



96 Mc. Synchronous Communication System.  
Top: D.s.b.c. Transmitter.  
Bottom: D.s.b.c. Receiver.

The following are several suggestions which could be borne in mind by a person constructing a d.s.b.c. system.

\* 3 Te Anau Ave., Prospect, South Aus.



Note:-P, sets clipping Level.

Frequency response 200m → 2.5Kc/s.

Fig. 13.

M. R. HASKARD,\* VK5ZBH

### (1) The Transmitter

This is relatively simple to design and construct. The only circuit which may be of interest is the clipping stage shown in Fig. 13.

An idea of the amount of audio power required to fully modulate a transmitter may be acquired from the example that 8 watts were required for a kilowatt transmitter.

Comments on the design of the audio system (its frequency response) and the final modulated amplifiers have been given in the previous sections.

### (2) The Receiver

I would suggest that a direct conversion receiver should not be used for an all-band receiver. Not only is switching of coils necessary, but the 90° radio frequency phase shift network and perhaps the "slope" of the reactance tube would have to be changed. All this can be extremely difficult. A simple synchronous receiver on about 86 metres in conjunction with crystal controlled converters would be ideal.

In constructing the receiver, special care must be taken to ensure a good solid chassis and that all audio wiring is shielded. This is because a very large percentage of the receiver gain is at audio frequencies and hence audio feedback (electrical or mechanical) can easily occur.

The receiver must be designed from the outset as a servomechanism problem. This ensures correct tracking, stability and sensitivity. As in Fig. 6, each section should be considered as a black box, and when the overall servo loop has been solved, the black boxes should be filled in. The servo is of the first order type (this is why a frequency modulator is used rather than

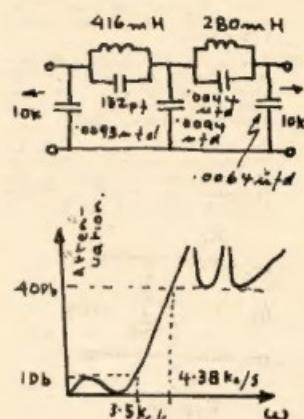


Fig. 14.

a phase modulator) and as such when the receiver is correctly "locked on" there will be zero error in phase (provided the phase is not changing linearly, i.e. no frequency shift).

Special points to note are:

- (1) For low frequencies, the radio frequency 90° phase shift network can be a simple R/C type. For high frequencies, a  $\frac{1}{4}$  wavelength of transmission line is suitable.
- (2) The audio amplifier in the I and Q channels should not pass any frequency below about 200 cycles, or heterodyne whistle will be troublesome.
- (3) The low pass filters determine the receiver selectivity curve, and, therefore, special attention should be paid to them. A suitable Tchebycheff circuit is shown in Fig. 14.
- (4) A.g.c. should be used on the audio system.



A 96 Mc. D.s.b.c. Receiver  
(cover removed).

- (5) A small 1" oscilloscope is far superior to an S meter. If outputs from the I and Q amplifiers are fed onto the X and Y plates, not only can the signal strengths be determined, but the phase error, frequency drift and other information can be determined at a glance.

- (6) The audio 90° phase shift network should be within  $\pm 5^\circ$  in order to obtain good noise and interference rejection. Any standard circuit can be used.

- (7) To stabilise the servo loop an integrating network should be placed in the d.c. path to the reactance tube. Such a simple circuit is shown in Fig. 15.

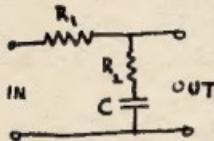
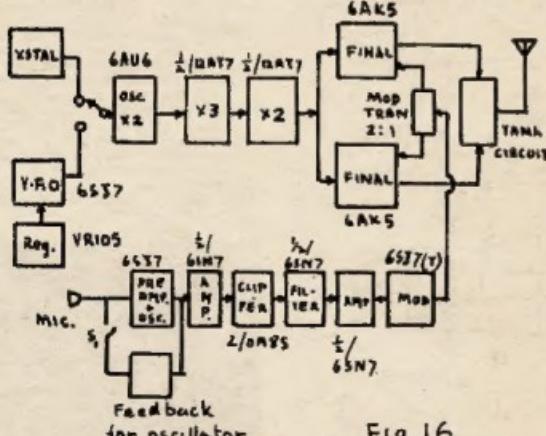


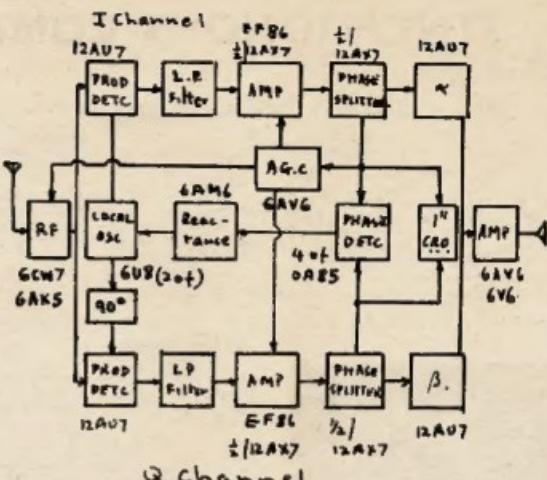
Fig. 15.

Block diagrams of a simple transmitter and receiver are given in Figs. 16 and 17.

Apart from solving the servo loop, a d.s.b.s.c. receiver working on 80 metres is not very difficult to design and construct. I feel that because of the distinct advantages offered by a d.s.b.s.c. system over a present-day a.m. communication system, when building their next transmitter and receiver, Amateurs should give a d.s.b.s.c. system consideration.



Block diagram for the  
96 Mc/s Transmitter.



## Block diagram for the 96 Mc/s Receiver

Fig. 17.

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TRADE NEWS

An Australian subsidiary company, Collins Radio Company (Australia) Pty. Ltd., located at Stanhill, St. Kilda Road, Melbourne, Victoria, will serve Collins customers in the Australian, New Zealand and South East Asia area.

A spare parts service centre and complete test facilities employing factory trained technicians for Collins equipment will be maintained by the new company.

# T.V.I. LITERATURE

JOHN ANDERSEN, VK3ZFO

The following is a bibliography relating to t.v.i./b.c.i. and is published to assist those who require additional information. The Publications Committee requests all Divisions to advise the problems which their Amateurs are facing in dealing with this matter.

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Stubs for T.v.i. Reduction—"QST" Aug. '52.

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Adjusting L.P.F.—"QST" Mar. '55.

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Low Pass Filters from Standard Mica Capacitors—"QST" Dec. '52.

Low Cost T.v.i. Filter—"QST" May '50.

Eliminating T.v.i. by Low Pass Filters—"QST" Feb.-April '50.

\* Secretary, V.H.F. T.V.I./B.C.I. Committee, 26 Adeley Avenue, Kew, Victoria.

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Baking Can Wavemeter—"QST" Feb. '55.

Handy Handfull (G.D.O.)—"QST" Mar. '53.

Increasing Sensitivity of G.D.O. Freq. Measurements—"QST" June '53.

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Phase Angle Data for Transmission Lines—"QST" July '52.

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Harmonic Separators—"QST" Dec. '50.  
Regenerative Wavemeter—"QST" Nov. '49.

Useful Tool for T.v.i. Reduction—"QST" July '49.

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T.V.I./B.C.I. Committees have been formed in all W.I.A. Divisions and any W.I.A. member experiencing t.v.i./b.c.i. is particularly requested to inform his local committee of his problems. The above bibliography has been based upon articles which the Amateur has ready access to, but it is not a complete survey. Your Divisional library may be able to lend you any of the above journals.



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# BOOK REVIEWS

## RADIO AMATEUR'S HANDBOOK

37th Edition, 1960

This year reviewing the annual edition of this publication was a pleasant rainy day occupation for me and overcame my disappointment at the rain ruining a perfectly good painting day.

It is rightly styled the "Standard Manual of Amateur Radio Communication" and over three million copies have been sold.

Its sections on the theory of radio communications have been revised to keep abreast of the state of the art, and material on the construction of equipment includes new designs in all categories. There are transmitters and receivers for every level of cost and constructional ability.

Special methods of Amateur communication, such as sideband and radioteletypes, are treated in sufficient detail so that any student of the art will be able to understand the basic principles. The theory and practice of Amateur mobile radio equipment is thoroughly covered and the use of transistors is included wherever applicable.

The chapter on vacuum-tube characteristics has been brought up to date, providing, as usual, one of the most complete listings of characteristics and base diagrams to be found between the covers of any one book.

I was a little disappointed to note that the only power supplies using silicon or germanium rectifiers were described on pages 494 and 495 where it is suggested that "silicon rectifiers may be used in lieu of the selenium types specified". The other reference is in section 6, pages 201 to 205, "A Compact 650 Watt Amplifier" where germanium rectifiers are used in a dual voltage doubling circuit.

Publisher: American Radio Relay League, Australian price 46/-, postage 3/-.. Our copies from McGRAW'S Newsagency, 183 Elizabeth Street, and Technical Book & Magazine Co. Pty. Ltd., 290-299 Swanston Street, Melbourne.

## "THE TRANSISTOR"

### Theory and Applications

This is the latest from the Philips Technical Library. It is well written and describes transistors and transistor circuits in sufficient detail for Amateurs to duplicate the equipment described. Unfortunately it does not include data on Philips' v.h.f. transistor, the OC170.

Our copy from McGRAW'S Authorised Newsagency, 183 Elizabeth St., Melbourne, C.I.

## SHORT WAVE RECEIVERS FOR THE BEGINNER

Many years ago when I was in my teens, I used to avidly search any literature which became available to me in search of circuits similar to those described in this publication and I can recommend this booklet to our younger constructors. It also contains information on setting up a receiving station, reporting, etc., and should be invaluable to the s.w.l.

The components used in the receivers are of British origin and identical units or acceptable substitutes should be readily available from your usual supplier.

Our copy from Data Publications Ltd., London Data Book Series No. 14. Technical book suppliers should be able to supply.



# \* The WARBURTON FRANKI Page \*



**HEATHKIT SG-8  
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Align tuned circuits quickly and easily with this fine kit. Also useful in tracing signals in faulty R.F., I.F. and audio circuits. Designed for general service applications, the SG-8 covers 160 Mc. to 210 Mc. on fundamentals in five bands and from 116 Mc. to 220 Mc. on calibrated harmonics. The entire oscillator circuit is built on a special sub-chassis using prewound and calibrated coils. No further calibration is required, as it is ready to use when connected to an appropriate R.F. circuit. Frequency is controlled by both step and continuously variable controls. May be modulated internally at 400 C.P.S. or externally at other frequencies. Complete with output cable and instructions.

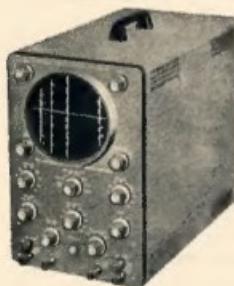
### HEATHKIT O-12 5-inch OSCILLOSCOPE

#### VERTICAL CHANNEL

Sensitivity: 0.023 volts (R.M.S.) per inch at 1 Kc.  
Frequency Response: Flat within plus or minus 1 db. from 8 c.p.s. to 2.5 Mc. F.R. plus or minus 1.5 db. from 8 c.p.s. to 5 Mc. Response at 3.3 Mc. minus 2.2 db. (All response measurements referred to 1 Kc.)  
Rise Time: 0.08 microseconds or less.  
Overshoot: 10% or less.

#### HORIZONTAL CHANNEL

Sensitivity: 0.3 volt (R.M.S.) per inch at 1 Kc.  
Frequency Response: Flat within plus or minus 1 db. 1 c.p.s. to 200 Kc. Flat within plus or minus 3 db. 1 c.p.s. to 400 Kc.  
Attenuator: Low impedance type in cathode follower output.  
Input Characteristics: Selector switch permits direct external input through panel terminal, line-frequency sweep of variable phase or internal sweep from sweep generator.  
permits wide range of positioning to examine any part of trace even with full horizontal gain.



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CATHODE RAY  
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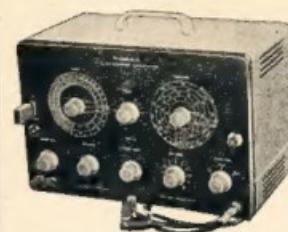
Ideal for Servicemen, this handy instrument can be carried on service calls to demonstrate the quality of a customer's picture tube right in his own home. Checks all electromagnetic deflection-type tubes using the duo-deal (12-pin) base. No worry about the type of focusing, electron gun or screen. Test for shorts, leakage and emission capabilities. A separate test is provided for beam current. Test picture right in receiver or carton. No ion tap required. Special provision is made for the actual observation of the gun aperture on the face of the C.R.T. The CC-1 is A.C. power transformer operated and supplies all operating voltages to the cathode ray tube. Designed to last a lifetime—the tubes to burn out or to replace. Permanent test cable with C.R.T. socket and anode connector included. Quality indications are read on a large 4½ inch 3-color meter scale; shorts on a neon leakage indicator. Housed in an attractive luggage-type portable cabinet with removable cover.



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Specifications: D.C. Volts: 7 ranges 0-1.5 to 0-1,500. Input Resistance: 11 megohms. Sensitivity: 7,333,333 ohms per volt on 13v. range. Accuracy plus or minus 3% full scale.

A.C. Volts: 7 R.M.S. ranges 0-1.5 to 0-1,500. Frequency response (3v. range): Plus or minus 1 db., 42 c.p.s. to 7.2 Mc. Accuracy plus or minus 5% full scale. Seven peak-to-peak ranges 0-4 to 0-4,000.

Resistance: Seven ranges measures 0.1 ohms to 1,000 megohms with internal battery.

Size: 7½ x 4-11/16 x 4½ inches.



# Remembrance Day Contest, 1960

A HANDSOME perpetual trophy is awarded annually for competition between States, inscribed with the names of those who made the supreme sacrifice, and so perpetuating their memory throughout Amateur Radio in Australia.

The name of the winning Division each year is also inscribed on the trophy. In addition, the winning Division will receive a suitably inscribed framed photograph of the trophy.

## Objects

Amateurs in each Call Area (this includes those in Australian Mandated Territories and Australian Antarctica) will endeavour to contact Amateurs in all other Call Areas (VK1 and VK2 are considered to be one Call Area).

## Date of Contest

13th and 14th August, 1960.

## Duration

From 1800 hours E.A.S.T., 13th August, 1960, to 1759 hours E.A.S.T. on 14th August, 1960. A period of 15 minutes silence will be observed by all stations on the 13th August immediately prior to the start of the Contest when an appropriate broadcast will be made from VK3WIA and relayed by the Divisional Stations.

## RULES

1. There shall be four sections to the Contest:

- (a) Transmitting Phone.
- (b) Transmitting C.W.
- (c) Transmitting Open.
- (d) Receiving Open.

2. All Australian Amateurs may enter the Contest whether their stations are fixed, portable or mobile, but only members of the W.I.A. are eligible for the Awards. Portable/mobile operation is defined as transmitting and/or receiving equipment which is not connected to any private or public power mains or plant.

3. All Amateur frequency bands may be used, but no cross-band operation is permitted.

4. Amateurs may operate on both phone and c.w. during the Contest (e.g. phone to phone, c.w. to c.w., or phone to c.w. and vice versa), but may submit an entry for only one of the above sections listed in Rule 1.

An Open log will be one in which points are claimed for both phone and c.w. transmissions.

A contestant transmitting on phone but receiving on c.w. must enter for the phone section (and vice versa). Refer to Rule 11 concerning entry in logs.

## EXAMPLE OF TRANSMITTING LOG

Date/ Time E.A.S.T.	Band	Emis- sion	Call Sign	RST/NR Sent	RST/NR Recvd.	V.h.f. Bonus	Points Claimed	Blank

Note.—Standard W.I.A. Log Sheets can be used to follow the above form.

\* The Federal Contest Committee of the Wireless Institute of Australia wishes all Australian Amateurs and Short Wave Listeners to participate in the Annual Contest which is held to perpetuate the memory of those Australian Amateurs who gave their lives for their country during World War II. It is held on the week-end nearest to 15th August, the date on which hostilities ceased in the S.W.P.A.

5. Only one contact per station per band is allowed and arranging schedules for contacts on other bands is not permitted.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

Contestants operating stations other than their own shall be referred to, for the purpose of these rules, as "substitute operators". Their operating procedure will be as follows:

Phone contacts: Substitute operators will call "CQ Remembrance Day" followed by the call sign of the station they are operating and the word "log" followed by their own call sign.

C.W. contacts: Substitute operators will call "CQ RD de" followed by the group call sign comprising the call sign of the station they are operating, an oblique stroke, and their own call sign.

Contestants receiving signals from a substitute operator will qualify for points by recording the call sign of the substitute operator only.

7. Entrants must operate within the terms of their licences.

8. Ciphers: Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (c.w.) reports plus three figures which may begin with any number between, or including, 001 and 100 for the first contact and which will increase in value by one for each successive contact, e.g. if the number chosen for the first contact is 053, then for the second contact the number must be 054, for the third 055 and so on. If any contestant reaches 999, he will start again with 001.

9. Entries must be set out as shown in the example, using only one side of the paper. Entries must be postmarked again with 001.

10. Scoring will be based on the table shown:

## SCORING TABLE

		VK0	VK1	VK2	VK3	VK4	VK5	VK6	VK7	VK8	VK9
From		-	8	8	8	8	8	8	8	8	8
	VK1-2	6	-	1	2	3	5	4	4	5	6
	VK3	6	1	-	3	2	5	4	5	6	6
	VK4	6	1	2	-	3	8	5	4	6	6
	VK5	6	2	1	3	-	5	4	5	6	6
	VK6	6	1	2	4	3	-	5	6	6	6
	VK7	6	2	1	4	3	5	-	6	6	6
	VK8	6	1	2	3	4	5	6	-	6	6

Note.—Read table from left to right for points for the various call areas.

In addition a bonus of 25 points may be claimed for the first contact in each Call Area on 50 Mc. or above.

11. Logs: All logs shall be set out as in the example shown and in addition will carry a front sheet showing the following information:

Name.....Section .....

Address.....Call Sign .....

Claimed Score .....

Declaration: I hereby certify that I have operated in accordance with the rules and spirit of the Contest.

Signed .....

Date .....

All contacts made during the Contest must be shown in the log submitted (see Rule 4).

Entrants in the open section must show phone and c.w. contacts in one numerical sequence.

12. The right is reserved to disqualify any entrant who, during the Contest, has not observed the regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Committee of the W.I.A. will be final. No dispute will be entered into.

14. Awards: Certificates will be awarded to the winners of the phone, c.w., open and receiving sections in each area (Northern Territory will count as a separate Call Area). There will be no outright winner for Australia. Further Certificates may be awarded at the discretion of the Contest Committee.

The State to which the Perpetual Trophy will be awarded shall be determined in the following way:

(Continued on Page 15)

## EXAMPLE OF RECEIVING LOG—VICTORIAN S.W.L.

Date/ Time E.A.S.T.	Band	Call Sign Revd.	RST/NR Sent	Station Called	V.h.f. Bonus	Points Claimed	Blank
Aug. '60							
13 1803	7 Mc.	VK5KU	59001	VK5KU	—	2	
13 1805	"	VK5GRU	58004	VK5DB	—	5	
14 1115	50	VK4RZ	47135	VK5QR	25	3	

Note.—Standard W.I.A. Log Sheets can be used to follow the above form.

# AMATEUR CALL SIGNS FOR MONTH OF FEBRUARY, 1966

## NEW CALL SIGNS

VK— New South Wales  
 ZCK— G. A. Warner, O.T.C., Brinsford.  
 ZCO— H. E. Orr, 24 Noble St., Hurstville.  
 ZCR— D. F. Lloyd, O.T.C., Brinsford.  
 ZCY— R. B. Chorley, 188 Atchinson St., Crows Nest.  
 ZDR— N. W. Beck, O.T.C. Brinsford.  
 ZPK— H. T. J. Stone, O.T.C. Brinsford.  
 ZDS— S. L. Handcock, 16 Tedman Pde., Sillivan's Creek.  
 ZEP— P. J. Carter, 12 Waits St., Ryde.

### Victoria

ZEI— D. F. Reid, 335 O'Hares Rd., Pascoe Vale.  
 ZEL— K. V. D. Brougham, 92 Brougham Rd., Mt. Waverley.

ZAFQ— W. L. Hepburn, 601 Nepean Highway, East Brighton.

ZAMH— W. E. Sadler, Station, Walker St., Ballarat, Postal: 208 Eyre St., Ballarat.

ZARZ— E. B. Roger, Lot 68 Orchard St., Mt. Waverley.

ZAZR— H. N. Magg, C/o Radio Australia, Sheeperton.

ZCZA— R. G. Abbey, 207 South Rd., Brighton.

ZCZC— R. G. Abbey, "No-Ray-Al," 55 Sandell's Road, Tecoma.

ZIHZ— I. A. Bourke, 2 Crowther Place, Brighton.

ZJH— D. W. Dorney, Cottage No. 6, Radio Australia, Shepparton.

ZJJD— D. C. Smith, 12 Inkerman St., Maidstone.

**Queensland**  
 ZDMD— D. W. McGrath, Station: 26 Latchford St., Pimlico, Townsville, Postal: C/o. P.O. Box 200, Townsville.

**South Australia**  
 ZTA— G. Cole, 8 Parrall St., Glenelg.

ZSAY— G. P. Yelland, 19 Lynington St., Tusmore.

ZZDK— R. H. Lamarcet, 38 Avenue Rd., Highgate.

ZFVX— F. A. Poole, Millside Rd., Springfield.

**Western Australia**  
 ZAO— A. R. Jarman, Forrest, W.A.

ZBJ— F. Wood, 1031 Wellington St., Perth.

ZMM— M. T. Foster, 129 Wellington St., Moonee Valley.

ZTC— C. T. Power, Lot 42, George Rd., Geraldton.

ZZCH— F. J. McMullen, Albany Highway, Madrasburg.

**Tasmania**  
 ZERJ— R. H. Waldon, 11 Mayne St., Invermay, Launceston.

**Territories**  
 ZHC— J. H. Collier, Cable Station, Cocos Isld.

**CHANGES OF ADDRESS**  
 VK— New South Wales

ZYI— C. W. Johnson, 30 Hicks St., Merewether.

ZAAU— K. P. A. Persson, 26a Station St., Armidale.

ZARM— L. G. Morgan, 94 Northcote Rd., Banksstown.

ZAFX— A. G. Oswald, 38 Alissah Ave., Carrs Park.

ZAEY— A. McMurtry, 241 North Rocks Rd., North Rocks.

ZAFD— D. J. Fisher, Kapoonda Ave., Dapto.

ZAGP— E. A. Parker, 78 Perouse Rd., Randwick.

ZALC— C. Allen, Eastern Command Signals, Gomley St., Lidcombe.

ZALP— P. Franklin, 20 Flitzroy St., Umina.

ZALW— H. J. Weatherley, 10 E. Villiers Rd., Paddington Heights.

ZAVJ/T— W. B. Jones, 281 Albany St., Gosford.

ZAVK— S. F. G. Williams, 147 Katoomba St., Katoomba.

ZAWW— D. McPherson, 35 Sixth Ave., Concord Park.

ZZGR— G. Ronayne, 117 Ryde Rd., Hunters Hill.

ZJZN— R. J. Neurath, 51 Doyle St., Revesby.

**Victoria**

ZJT— L. G. Symons, 80 Maple St., Mt. Waverley.

ZOK— J. Creddy, 22 Lyell St., South Melbourne.

ZPV— D. R. New, Station: 25 Narrabeen Rd., Collingwood Park, P. O. G.T.C. Receiving Station, Rockbank.

ZQG— C. K. Blaikie, 38 Urquhart St., Hornsby.

ZVS— L. L. Griffin, 27 Auburn Rd., Auburn.

ZAKR— Parker, 39 Gillies St., Fairfield.

ZAKA— H. E. Hughes, Sunhill Rd., Mt. Waverley.

ZAPV— D. B. Shaw, C/o. O.T.C. Receiving Station, Rockbank.

ZJZ— J. R. Edwards, 22 Ormonde Rd., Elsternwick.

## QUEENSLAND

4CI— C. E. Coghill, 38 Bernhard St., Paddington, Brisbane.  
 4JA— T. J. Marsten, 187 Aberdeen Pde., Boondall.  
 4KS— L. J. Salter, 66 Haly St., Kingsbury.

## SOUTH AUSTRALIA

SDJ— J. F. Drew, Kingston, S.A.  
 SFE— W. M. P.M.G. S.Techs. Rec., Marrickville.  
 SIA— A. R. Allwright, 2 Shaxton St., Salisbury North.

SW— B. Wall, 8 Dutton St., Glen Osmond.  
 SPK— P. T. Hainsworth, Manunda Ave., Windsor Gardens.

SRZ— O. L. Nestrom, 7 Daphne St., Kurralka Park.

## WESTERN AUSTRALIA

6ZCE— K. J. Koska, 4 Walker St., Wembley Park.

## TAIWAN

IJO— J. G. Oliver, 83 Montagu St., Newtown.

## CANCELLED CALL SIGNS

VK— New South Wales

ZDS— A. D. Freeman.

ZEM— A. P. Scott.

ZAAZ— 18th L.A.A. Regt. Radio Club.

ZACO— C. H. Orr (now VK2CO).

ZAHL— W. A. Lewis.

ZAHW— H. T. J. Stone (now VK2PK).

ZANY— M. W. Beck (now VK2HR).

## Victoria

ZWT— W. G. Barrister.

ZAJX— R. Jarman (now VK2AO).

ZAYO— M. T. Webster (now VK2MW).

## QUEENSLAND

4DS— D. R. Snodgrass, Willis Island.

## SOUTH AUSTRALIA

SDG— W. F. Couper.

SLW— R. D. Kelly.

SZEF— I. E. Fraser.

## WESTERN AUSTRALIA

SDL— D. Law.

## TAIWAN

TPD— P. E. L. Dunne.

## PERMITS GRANTED FOR TELEVISION EXPERIMENTS

VK—

ZAJI/T— F. G. Cissoid, Box 220, Deniliquin.

ZZEF/T— R. J. F. Wood, Experiment Farm, Yanco.

4VB/T— F. J. Wood, 173 Ferguson Rd., Seven Hills.

6ZBK/T— L. G. Rock, 38 Essex St., Wembley.

6ZBK/T— L. G. Rock, 38 Essex St., Wembley.

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## VK5DF AT FAIR

Amateur Radio Station VK5DF was set up at the Port Lincoln Trades and Industries Fair, held on 25th and 26th March, 1960.

John VK5JM and Wally VK5DF were the operators on the 7 and 14 Mc. bands. The photograph shows Wally VK5DF at the controls.

Radio conditions were not the best during the hours of operating, but 30 most interesting contacts were made and greatly appreciated by the patrons to the Fair. Quite a few took the opportunity of having a few words to say to fellow Amateurs, both near and distant. The best DX was to ZL land.

The transmitter was a Geloso v.t.o. into a single 807 at 50 watts plate and screen modulated. The receiver was home built, 10 tubes, one r.f. stage, three i.f. stages at 455 Kc., and plug-in coils for the various bands.

The complete rig was set up in a home-built walnut veneer cabinet and has the permission of SDF's XYL to allow it set up in the front room of the house.



The antenna used at the Fair was 88 feet long, 25 feet high, and end fed with 300 ohm ribbon 45 feet long.

The DX cards pinned around the world map were loaned by Tubby VK5NO, and came from 70 different countries. John VK5JM loaned a spare receiver and the globe of the world.

The Port Lincoln Junior Chamber of Commerce is grateful to the P.M.G. Radio Branch for the special permission to operate the station at the Trades and Industries Fair as a working station, and sincere thanks to the Amateurs who made contact. By the time that this is read it is hoped that the special QSL cards printed for the occasion will have been posted out to all those stations that made contacts.

## ROSS HULL MEMORIAL V.H.F. CONTEST 1959-60 RESULTS

### TROPHY WINNER

D. R. Horgan, VK4ZAX, was the trophy winner and highest scorer with 1,885 points.

### AWARD WINNERS

#### Phone:

VK2ABR	A. W. Rushby	707
VK3ZFM	R. A. H. Blake	628
VK4ZAX	D. R. Horgan	1885
VK5ZGA	G. A. Gormly	1052
VK6WVG	W. W. Green	505
VK7ZAI	D. A. H. Thorne	367
JAI2BWD	Takashi Miyazaki	474
JAI2ZL	-Yasuso Yamada	142
JAS3ASP	Shuichi Matsumoto	101
JAS3CC	Ken-ichi Kitajima	227

#### Open:

VK2WH	W. H. R. Stitt	951
VK4PU	J. D. Purdon	691
VK6GSE	J. R. Elms	304
VK7LZ	C. P. Wright	764
VK9XK	S. R. Coleston	583
ZL2DS	K. R. Kirkaldie	205

#### Receiving:

D. King (VK4)		1672
K. A. Wehr (VK5)		1294
J. M. Hilliard (VK3)		481
Jesutsgu Miura (JA)		415

### INDIVIDUAL SCORES

#### Phone:

VK2ABR	707	VK5ZDR	654
VK2HE	650	VK5ZBL	653
VK2RK	553	VK6WVG	505
VK2ZER	542	VK6ZBP	490
VK2ZCF	341	VK6ZBZ	446
VK2ZDM	237	VK6FM	283
VK2ZAD	125	VK6ZCD	267
VK3ZFM	628	VK7ZAI	307
VK3ZCG	574	VK7ZAO	198
VK3ZCZ	441	VK7ZAC	136
VK3ZFO	294	VK7ZAA	75
VK3ZGP	252	VK7ZAK	47
VK3ZAT	240	JAI2BWD	474
VK3ZBR	142	JAI2CYC	386
VK3SQV	100	JAI2AUD	329
VK3ZCO	84	JAI2CYZ	286
VK4ZAX	1885	JAI2BIR	211
VK4NG	1011	JAI2BYM	163
VK4ZBE	889	JAI2CWP	139
VK4ZBI	506	JAI2CBZ	95
VK4RW	302	JAI2ZL	142
VKS2GA	1052	JAS3ASP	101
VKS2BZ	802	JAS3CC	227
VKS3KK	772		

VKS2BH sent in a check log.

#### Open:

Participants as shown in Open Awards.

#### Receiving:

Participants as shown in Receiving Awards plus C. H. Thorpe (VK4) 422 points.

\*

### AUSTRALIAN AMATEUR CALL BOOK

The 1960-61 Edition will be issued during June-July and orders will be accepted in advance. Check your Call Sign listing and advise the Publications Committee of any correction required. Use the tear-sheet at the back of the Call Book.

## FEEDBACK

The extraordinary meeting of Federal Council concluded at 6.30 p.m. on 18th April, 1960, having spent all day discussing the implication of I.T.U. with reference to VK Amateurs. The results of this meeting will have a far reaching effect, and only history will prove if the correct approach was adopted.

Like yourself, I had little knowledge of how Federal Council and Federal Executive functioned, but having spent the day at this meeting, have now gained some impressions which may interest you.

Federal Council is no social gathering, neither is it a group of yes men. Each Councillor had his say and forthrightly put forward the views of his Division. If these views were not adopted it only indicated that the majority of Councillors did not concur.

This meeting, specially called to discuss frequency allocations, did just that. They fully discussed every Amateur Band and you may be assured that your favourite band was the subject of as much debate as any other band. No bias was shown and the Councillors proved that they did have your interests in mind.

You may not have yet heard that Federal Council agreed to Federal Executive taking the strongest possible action to retain the maximum Amateur frequency allocation. Many other details were agreed upon, and you should be fully informed. If you do not know the full details, ask questions of your Federal Councillor, Division, or on the W.I.A. call-back.

Radio Amateurs are indeed fortunate that they have access to a rapid communication medium—Amateur Radio. Let us use this to the fullest extent so that every Australian Amateur is aware of the outcome of the Extraordinary Federal Council Meeting.

Rumour has no part in our activities, particularly as the true facts are so readily available. Therefore base your comments upon official facts and ignore grapevine reports.

Back your Division, which has agreed to a standard Australian Amateur policy regarding retention of our Amateur bands. Act as a united W.I.A. to retain frequency allocations, because as an individual you will only help to weaken Federal policy.

Every Australian Amateur is to receive a copy of the full I.T.U. report regarding frequency allocations. This will be the same report as that tabled at the Federal meeting, so you, too, will then possess all the relevant facts.

\*

Heard an interesting character calling CQ ninety-three times without giving his call sign. Bet he complained that no one ever answers him. What's the matter OM? Even pirates give call signs.

\*

That character must read this column. He now hetostively VK3WL.

\*

Read that Mt. Bunninyong may be used for erection of t.v. towers. My, that will ruin the DX won't it.

73  
CASEY.

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Secondary 1,000, 250, 750 or 500 volts per side of c.t., depending on primary tap selected. D.C. load current 200 mA. continuous or 250 mA. part intermittent with choke input filter

Secondary 2: 4.5 to 6 volts at 0.3 amp for pilot lamp. For use with SR4GY rectifier choke input filter

#### TYPE PT1400

Primary 200, 220, 230, 240 volts.  
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Filaments 2 x 6.3v. (2a), 2 x 2.5v. (3a), 5v (3a). Horizontal mounting.

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Primary 200, 220, 230, 240 volts.  
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Max. D.C. wkg. 3,000 volts

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## HINTS AND KINKS

### PANEL BUSHING FROM POTENTIOMETERS

Don't discard those old burned-out potentiometers. Throw away the carbon element and case but save the shaft and threaded bushing. It can be used as panel feedthrough bushing for 4 inch shafts.

—Ira L. Simpson, W3LKS, "QST," Dec. '59.

### MODULATION PERCENTAGE INDICATORS

The circuit of a modulation indicator that I use with my 813 rig is shown in Fig. 3. It indicates by the use of neon lamps when the modulation exceeds 89 and 100 per cent, and is superior to a meter indicator since the flashing lamps can be seen at a glance without looking directly at the indicator. The audio gain controls on the speech amplifier-modulator are set so that the 89 per cent. indicator flashes only occasionally. The indicators are NE51 neon lamps.

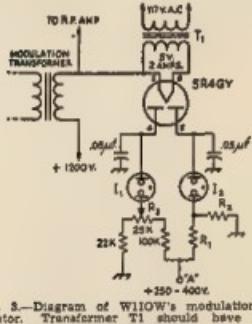


Fig. 3.—Diagram of W11OW's modulation indicator. Transformer T1 should have high voltage insulation.

Variable resistor R3 is adjusted, with the r.f. amplifier plate voltage turned off, until indicator II ignites from the voltage source at "A". In actual on-the-air use, the r.f. amplifier plate voltage will swing to zero on negative peaks during 100 per cent. modulation and the lamp will ignite. Indicator I2 is biased to about 200 volts by choice of the proper values for the voltage divider R1-R2. I used two 47,000 ohm 2 watt resistors with 400 volts at point "A". The ignition voltage for the NE51 is around 65 volts. When the r.f. amplifier voltage is less than 135 volts (200 - 65) the indicator will ignite. The formula for calculating per cent. modulations is

$$\% \text{ mod.} = \frac{E_S - (E_B - E_1)}{E_S} \times 100$$

where Es is the r.f. amplifier d.c. plate voltage, Eb is the neon lamp bias voltage and E1 is the neon lamp ignition voltage. Substitution in the formula for indicator I2 in Fig. 3:

$$\frac{1200 - (200 - 65)}{1200} \times 100 = 89\%.$$

The 5R4GY rectifier can be used in circuits where the plate voltage does not exceed about 1400 volts d.c. For higher voltages a 2X2A can be substituted (along with a suitable filament transformer).

—Charles R. Greene, W11OW, "QST," Oct. '59.

The modulation-monitor circuit shown in Fig. 4 does away with the necessity for using a separate filament transformer or a filament winding with high voltage insulation, and can be used at Class C plate voltage levels as high as 10,000 volts d.c.

The monitor uses a diode designed for television receiver power supplies, and will work with the Class C plate current is 125 mA. or more. The diode direct-emitting filament nominally requires 200 mA. at 12.5 volts, but the tube is connected as shown, the power dissipated is only about 1/2 watt. Therefore, heat generation is not a problem and the tube may be mounted in any convenient spot.

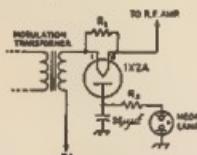


Fig. 4.—Diagram of W6GOO's modulation indicator which obtains filament power from the r.f. amplifier plate supply.

Resistor R1 should be included in the circuit if the d.c. plate current of the r.f. amplifier exceeds 250 mA. The resistor's value may be calculated by using Ohm's law. Substitute 1.25 volts for E, and the excess current over 200 mA. for I in the formula.

Resistor R2 is a current limiting resistor which protects the rectifier. Its value depends on the type of rectifier and neon bulb used, but something around 100,000 ohms should be about right.

More than one rectifier may be used by connecting the filaments in series. Again, if the Class C plate current exceeds 200 mA. connect resistors in parallel with each filament.

—E. A. Anthony, W6GOO, "QST," Oct. '59.

### BACK-LASH IN H.R.O. TUNING CONDENSERS

If the dial on your H.R.O. does not return to the same setting each time it is moved then the solution is as follows: Carefully unscrew the nut at one end of the tuning condenser, then slowly tighten the inner screw. Repeat this process at the other end of the condenser, then tighten both holding nuts. This will remove all back-lash in the dial.

May "A.R." correspondence reveals a lot regarding our "doctors", but was disappointed not to read the following story. When a prominent actress fainted, the stage manager appealed for a doctor, regrettably the physician was last in a long line of D.S.C., D.D., D.Lit. Suppose this led to a bust up.

\*

On the air checks prove that double sideband with injected carrier is still the most popular mode of transmission.

## A WORD TO THE WISE

Throughout Australia all electricity authorities have adopted the standard colour code of green for the earth, with red and black for the active and neutral respectively in all leads to a.c. mains equipment.

Overseas manufacturers do not use this colour code; in their system red is earth.

Before connecting any imported equipment to the a.c. mains, check with an ohmmeter to establish which lead is earth and wire the apparatus accordingly to the mains plug. Do not take for granted the fact that the equipment is correctly (i.e. safely) wired. Check before using.

In addition it is always a safe precaution to check any three-pin power point. Some States do not require the earth lead to be connected to every three-pin socket in a domestic installation. So though your apparatus may be properly connected to the three-pin plug, your power point may not be properly earthed.

Check your installation to ensure all equipment is correctly connected and adequately earthed.

DEATH IS PERMANENT!!

### ALL ASIAN DX CONTEST

The Japan Amateur Radio League is conducting an All Asian DX Contest for 30 hours from 1000 GMT 27th August to 1800 GMT 28th August. The purpose of the Contest is "to promote the radio activities of Amateurs in Asia through exchange of information and communications between the Radio Amateurs and those of other continents". The rules are—

1. Stations participating should call CQ AA. 2. All bands 3.5 Mc. to 32 Mc. inclusive may be utilized.

3. The Contest is for c.w. only and cross-band contacts are not permitted.

4. The serial number exchanged will be the RST report plus the age of the operator; YL operators are permitted to use two zeros in front of giving their age (hi).

5. A multiplier is given for one point and the multiplier is the number of Asian countries worked on each band.

6. Awards of certificates will be made to each country. (a) For single band entry to highest scoring station on each band. (b) For multi-band entry, the three highest scoring stations.

In addition a special cup donated by the Minister of Postal Service will be awarded to the highest scoring single operator on multi-band in each continent. Logs must be postmarked by 1st September and should be sent direct to J.A.R.L. P.O. Box 317, Tokyo Central, Japan, and should be endorsed Attention Contest Committee. The usual certificate should be completed at the end of the log.

Further details may be obtained from the W.I.A. Federal QSL Bureau.

Building a modulator? Suggest that if you require a driver transformer for a 6N7, then you contact A. & R. Electronic Equipment Co. Pty. Ltd. who have just released their Type IT630. Having spent a long time searching the "recognised" trade houses I assure you they are not easy to locate.

\*

Want to work an AC5? It is difficult as there is one licensed station in that territory. The same applies to CR10, CS3, KG61, KP6, PX, TA, VP8, VQ8, VR1, XV, YI, ZD8, ZD8, 4V8, and SJ. Think of the dog pile when these stations call CQ.

# CORRESPONDENCE

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

## JOHN MOYLE MEMORIAL STATION

Editor "A.R." Dear Sir,

Suggestions have been requested for the form which a memorial should take to perpetuate the memory and work of the late John Moyle.

Many enthusiasts have made it possible for many of us who did not know John personally to learn of his tenacity of purpose in working to improve the standard and status of Amateur Radio. His efforts on behalf of the Wireless Institute of Australia are known to all members and it appears to be generally agreed that W.I.A. should claim the privilege of sponsoring a memorial station.

When the final form is decided, it should preserve the dignity of the man remembered and to achieve this, it is considered all contests should be avoided.

To endow a scholarship in radio engineering would be a fitting lasting tribute to John Moyle, but the best memory to John would be to perpetuate something which he created and through which he was known to Amateurs all over the world.

It would be a nice gesture to approach Mrs. Moyle to seek her agreement for the W.I.A. to obtain permission to control and operate VK3JU as the "John Moyle Memorial Station". The New South Wales Division is admirably situated to install and operate such a station.

What better way to perpetuate the memory of a great Amateur?

—George Hills-Thompson, VK3AHN.

## THE AMATEUR'S STRUGGLE

Editor "A.R." Dear Sir,  
Recent statements in Parliament, touching on the Amateur's struggle to defend his right to use the existing bands, must cause all Amateurs to do some deep thinking on this urgent matter.

When Mr. Daly, M.H.R. (1952/53), in the House challenged the P.M.G. (Mr. Davidson) to give a satisfactory answer to these questions, "Who were the delegates to the (Geneva) Conference? What instructions were given to them? Did they act contrary to those instructions?" the statement made by Mr. Davidson was most amazing at all! He obviously intends to hide the glaring and disturbing fact that in spite of widespread support of Alan Fairhall's statements in the House in May last year (no Member of the House supported him) yet our delegates voted to cut the Conference and almost certainly these will be recommended in the forthcoming Report to the House.

To quote Mr. Bryant (Wills) (Hansard, page 310), "This Government's indirect direction of P.M.G. to act on behalf of the Nation has got to cease."

Yet as Mr. Bryant must know, this has been evident for a long time now. Parliament is a farce as long as it continues.

It is not enough in my opinion that the Federation has voted a similar resolution.

On the bands or lose them. We can and must bring political pressure to bear individually and as an organisation.

If we once assume that the Amateur represents a cross-section of the people, then we must by virtue of that assume that just like everybody else he has moved his residence over the last 10 years or more, through the agency of inflation, and the high cost of living and the necessity to work overtime, etc. In other words he is fighting on at least two fronts—against great odds—to keep his family together and still retain some leisure time for his hobby.

What one could suggest is a campaign to induce each Amateur to spend a small part of his leisure time to write to his local Member and the local paper, supporting Alan Fairhall's proposal to set up the "Home Field" (5/5/53) to set up a separate band to allocate the bands, apart from other government departments who use radio bands, on similar lines to the F.C.C. in the U.S.A.

This could be an excellent beginning  
—W. H. Richardson, VK3DQ.

## CUTS IN AMATEUR BANDS

Editor "A.R." Dear Sir,  
No doubt when this letter appears the members will have read in your magazine the recent speech in the Federal Parliament of Senator Hartigan, Messrs. Fairhall, Wheeler, Turner and Dean referring to prospective cuts in Amateur bands.

Mr. Fairhall has outlined the matter perfectly. The idea that such an important matter should not be brought before our elected representatives is quite wrong. The right to bring grievances before his Member of Parliament is the right of every citizen.

As mentioned in the Editorial column in "QST" for March, it appears from the proceedings at Geneva that in certain countries, Amateurs had been neglecting their homework. The majority of this is clear from the time forward, in order to do our homework we have to have good advertising and public relations. Let us constantly keep in touch through the daily press and our local Members. We tend to forget that a Commonwealth Department is the servant of Parliament and Parliament is elected by us, the citizens.

—R. L. Douglas, VK3ION,  
M. R. Collett, VK3RUB,  
R. Brook, VK3AL.

## "PINK PAGES"

Editor "A.R." Dear Sir,

It is always regrettable when the correspondence columns of a specialist journal are used to expound views on matters in no way connected with its specialty.

In particular I refer to the querulous letter from Mr. J. G. Reed, VK3JU (hereafter referred to as "Reed") in reference to his objection to the more courteous forms of address, and to all titles, etc.) in which he uses his pink pages suggestion as a vehicle for a mixture of conceit and boorishness.

Let us examine his presumptions and suggestions.

Of what value would a list of names and hobbies be? Let us also include such things as religious denomination, club membership, name of wife, etc., etc. These are surely more important than particular hobbies. First names, only assume real value when several contacts have established a bond between operators. The traditional "Old Man" is far more suited to chance contacts than the nickname. "The name here is Cech—or Cedric—or Joe."

Does the Amateur need to hunt for kindred spirits among the pink pages before he answers a call, or worse still, before he contacts another Amateur a second time? How many of the "old timers" Amateurs, as Reed calls them, actually look a person up in the Call Book during contact?

Then again, what constitutes an active Amateur: one who commences every contact with "The rig here is ... If to be an active amateur means to have a drone—referred to as hobby clichés with the mental constipation and verbal diarrhoea group, I shall be content to remain a drone.

The Amateur licence permits us to carry out our experiments and associate experiments—not social experiments!

Whilst not all medical practitioners may be regarded as God's gift to mankind, it would be as discreditable to deny them the use of the title Doctor as it would be to deny Reed the title Amateur. As Reed says, "I am a doctor, for one thing, it is more regular than the other."

In contrast, however, the title "The Reverend" is indeed regular when applied to "Clerks in Holy Orders" and as such is used in all official documents. To describe this title as a sanctimonious tag is surely in keeping with the spirit of practical amateurism mentioned in the book "Amateur Extra". Fortunately, most school "professors" don't carry their pretensions into adulthood.

Such a slight on the eleven clergy listed in the Call Book calls for an immediate apology which I and others hope to see in the next issue of "Amateur Radio".

—George Cameron—VK3EC.

Editor "A.R." Dear Sir,  
An excellent suggestion by "Professor" Joe Reed to list the activities of Amateurs in a pink page section.

This would assist in opening up new avenues of conversation during the QSO—with apologies to those technical experts who would have us limit remarks to the subject of radio.

Joe's idea did not call for the tirade of abuse from the members of the medical profession to his name.

Like the "Professor," I fail to see what useful purpose is served by the inclusion of a prefix to denote the calling or profession of an Amateur.

It is not to drum up a little extra local business, then it surely must be social snobbery.

Which gentlemanly Amateur even cares if the owner of the honey blonde tones at the other end of the QSO is married or not—plain "Mary" would do just as well as Tom, Dick or Harry.

"M.D." states that our American brothers would claim "Professor" Joe Reed as a peddler

of quack medicines. Might I point out to "M.D." that the prefix Dr. would mean to them either a foot doctor, a tooth doctor, a backache doctor, or as in "M.D." himself perhaps a drunk pillar down.

Ernie, "The Chinese laundryman," is wrong when he states that the vocation of a minister of religion is not a profession as according to social snobbery the three top professions embrace the Law, the Army, and the Clergy, in that order.

—J. F. Pickles, VK3PF.

The Publications Committee consider the suggestion regarding a pink page section in the Call Book has not met with favour and therefore close correspondence on this subject!

Editor "A.R." Dear Sir,

Permit me space to reply to the various critics following publication of my letter proposing a special section of the Call Book . . .

Personally, I do not expect that Amateurs will bestir themselves to make an equivalent of a pink page possible for the Amateur Call Book. Today the experimental urge and spirit of originality seems to have withered beyond recognition . . .

—J. G. Reed, VK3JU.

## THIRD PARTY TRAFFIC AND EMERGENCIES

Editor "A.R." Dear Sir,

One of the points most frequently brought up in favour of Amateur Radio operations is the fact that Amateurs can be useful in providing communications in emergencies. The validity of this is borne out every month in "QST".

If the P.M.G. Department recognises this as one of the reasons for our continued existence, it seems a pity that we, as Amateurs, are not given more opportunity to become proficient in message handling. I refer, of course, to third party traffic.

If a group of Amateurs, few or none of whom have ever had the opportunity of handling messages in an organised net, were suddenly to find that they are the only means of communication into and out of an emergency area, the result could probably be disastrous, or at best, most inefficient system.

If, on the other hand, those Amateurs had been able, over a period of time, to develop a smoothly operating system of nets and traffic routing, the results would be much more beneficial to the public and much less confusing to the Amateurs concerned.

The National Traffic System, which operates throughout the U.S.A. and Canada, is a good example of what can be done by Amateurs. It is run by amateurs, at least in the evenings, once a week, some meet twice a week evening, and a large amount of traffic is handled for Amateurs and for the general public. The result is considerable favourable publicity for the Amateurs who in turn become proficient in operating traffic nets and enjoy doing it.

I realise that the W.I.A. is an amateur organisation for its members, but this is not enough to develop a good system.

First nets should meet at least five times a week and should be integrated into a traffic system covering the entire country.

Second, QSL is the only efficient mode for handling traffic—but that is another story!

The P.M.G. Department has, I believe, a monopoly on communications in this country. Since that Department issues our licences, can they not be induced to aid our endeavours? Surely if cannot be that they are afraid of the competition we would give them, because:

(a) The total number of messages handled by Amateurs would be a negligible part of those handled by the Post Office.

(b) We would be operating a purely voluntary system, without charge, and could therefore give no definite guarantee of delivery.

(c) The P.M.G. could restrict our traffic (as is done in Canada) to messages of a non-commercial nature.

The extremely small loss in Post Office revenue due to messages being handled by Amateurs instead of telephone or mail would be more than offset by the value, in times of emergency, of the communications system that we could build up.

Can we hear some opinions on this other than those of the experts who missed the B.C. Emergency, Seventh Regional, and Pacific Area nets?

—Ben Pooley, VK3EP.

## T.V.L. AND THE G.B.O.

Editor "A.R." Dear Sir,  
Thank you for the inclusion in May "A.R." of the T.V.L. Diagnosis Chart and to the author of same whom I believe simplified the original article from R.S.G.B. t.v.i.

(Continued on Page 15)

## OVERSEAS TRIBUTES TO LATE JOHN MOYLE

The following tributes to the late John Moyle, VK2JU, have been received by the W.I.A. Federal Executive from overseas Amateurs:

Dear Mr President,

I write with profound regret that I heard the sad news of the passing of John Moyle, VK2JU.

I was on the British Delegation in Geneva and got to know John extremely well. He really did a first class job in Geneva and I would like to add much more to what has good an advocate for amateur. Without doubt he furthered the Amateur cause. He did not spare himself, was well informed, and made his presence felt with tact, but none-the-less with firmness. I am grateful to him, and indeed all amateurs are indebted to him. The news of his death you can well understand was quite a shock. I feel we have all lost a sincere friend in Amateur Radio.

I trust you will accept this little note as an appreciation of John and his work.

L. E. Newsham, G6NZ,  
President, 1968, R.S.G.B.

Dear Fellow Amateurs,

Through J. Clarcross, G8CL, I have just learned that our good friend, John Moyle, VK2JU, passed away recently.

I had the good luck to meet him at Geneva and to witness the splendid way in which he assisted the cause of Amateur Radio. His death is certainly a great loss to the fraternity and I have been extremely sorry to hear about it. Please be so kind as to pass my condolences to the relatives of the deceased.

—Otfried Luhra, ex-DL1KV,  
Member IARU Delegation.

Dear OM,

It is with great regret that I have to acknowledge receipt of your letter of 16th March, 1968,

reporting the sad news of the death of John Moyle, VK2JU, and the sympathy of the members of the Society in this great loss is extended both to the W.I.A. and through you to his family.

My own personal sympathy is tinged with the great regret that I failed by a few short hours to see John in Switzerland last year whilst on holiday.

Many thanks to you and to all your officers for the excellent performance in maintaining, if not status quo, then as near to it as could possibly have been achieved in the recent I.T.U. Conference regarding Region III.

—G. A. Cuppleditch,  
President, Hong Kong Amateur Radio  
Transmitting Society.

### MRS. MOYLE'S SINCERE THANKS

The Federal President (Mr. Hull) of the Wireless Institute of Australia received the following letter from Mrs. Moyle:

Dear Mr. Hull,

Would you kindly convey to the Federal Executive and the Federal Council of the Institute my sincere thanks for kind messages and expressions of sympathy in our recent bereavement.

In this time of sadness it has given me much comfort to know of the high esteem in which John's contributions to the W.I.A. are held for, as you must well know, the Amateur cause was always very close to his heart.

(Signed) Alice Moyle.

## R.D. CONTEST, 1968, RULES

(Continued from Page 8)

To the average of the top six logs shall be added a bonus arrived at by adding to this average, the ratio of logs entered to the State Licensees, multiplied by the total points from all entries.

### Example:

Average of the top six logs +  
 $\frac{\text{Logs Entered}}{\text{State Licensees}} \times \text{Total of Points}$   
from all Entrants

Acceptable logs shall show at least five valid contacts.



"The Amateur is Balanced."

## CONTACTS WANTED FOR SCHOOL RADIO CLUB

Shown in the photograph are two well-known junior operators, John (at left) and Mick (right), at the St. Joseph's Technical High School Radio Club station, VK2AXX/P. It is a "junk-box" rig, 40 watts to a 6146, dipole antenna.



The boys are on 40 metres nearly every day at 1245 and 1545 hours, but the bands are not well populated at that time of day, so anyone who can give the station a call will be doubly welcome.

## WANTED! ARTICLES

Can you write an article for "Amateur Radio"? How about one for Hints and Kinks?

## CORRESPONDENCE

(Continued from Page 14)

articles. It is clear and concise and should help everyone in need of a plan to overcome Amateur interference to t.v. reception.

One comment I wish to make regarding the article is with respect to using the g.d.o. as an absorption wavemeter for the detecting of spurious signals.

It would appear that where the Amateur has used a g.d.o. for this purpose, the amount of sensitivity attained by the instrument often lacks. For instance in a case recently where a well known commercial mask could register a dip at 200 Mc. in the final tank but no trace could be located using same as a wavemeter, yet the fourth harmonic from 50 Mc. would clearly cross hatch on Channel over 100 ft. away.

However, using a super regenerative receiver (well shielded) an 80 signal was heard over 200 ft. away. It would appear that even a simple superregen could use a grid leak detector, provided sufficient spectrum could be covered. Another, even better arrangement, could be a modified t.v. tuner ahead of a normal i.f. system providing audio output. A metered i.f. system would provide much more efficient source of identifying spurious signals.

The same instrument might provide, by means of a suitably switched range, comparative measurements of field intensity, both of the Amateur signal and t.v. signal for assessing the effect of the former on the latter in the t.v. channel. It can safely be said that even a relatively small amount of signal inside the t.v. channel will cause cross hatch and where it is in relation to the picture carrier and its relative position will determine the degree of interference.

It would be good policy if each Division could arrange for someone (or some groups) to construct such a device (call it what you may), to assist in the tracking down of harmonics from Amateur Stations.

—L. Poynter, VK3ZOP.



# SWL

Maurice Cox, WIA-L3055  
Flat 1, 27 Bayes Crescent,  
Olympic Village, Heidelberg,  
N.S.W. Victoria.

Hi chaps. This is your scribe again with the news of the a.w.r.s. of Australia.

I would like to start this month with a speech. On Saturday the 1st April we arranged to the station of the A.B.C. at Melbourne, but only seven members were present to witness a very interesting and instructive tour of installations and studios. The unfortunate part of the whole evening was the poor attendance.

The organising committee is most disappointed with the lack of attendance at the two visits that have been arranged this year. An interesting number of visits has been planned for the next twelve months and your attendance of future meetings will be greatly appreciated. I mean to say, after all, they are for you, aren't they? So how about it chaps?

If you have a particular place in mind that you would like to see, please get in touch with Ian Woodman at 24 Pewster Rd., Hampton, S.T.

Now for some interesting letters: firstly, from Eric Treblehook, BERBEC. He says: "My scores are now 265 heads, 255 QSL's and 20 confirmed." Last month I believe it is not he who added five new ones to the received QSL confirmed list and this month has added one more: last month's newest was Cape Verde Islands CWA/AM. The latest VMIKA has been from our President Mike Ide received from friend Willis after waiting for five years. Br. Virgin Islands VP3VG, Turks and Caicos Islands VP-5M, Chatham ZL3VB and ZL7VH/2 for \$4.00; he had a card direct from DL5PFT for his report on Andaman QRP which was accompanied by DL5PFT and two others. So you can guess that he is quite happy with his QSL results of the past few weeks.

In nine days of April, he received 44 QSLs. Of these were FPIW, FZ7Z, FZ7Z/PAF and YV8BT. He has now 47 of the 48 States QSLs for the American N.A.D. certificate. He just received Montana W7NCB/W but still needs North Dakota. Then he'll have the 48 States.

On the 14th April he had 100 QSLs. In nine days he has FPIW, FZ7Z, FZ7Z/PAF and YV8BT. He has now 47 of the 48 States QSLs for the American N.A.D. certificate. He just received Montana W7NCB/W but still needs North Dakota. Then he'll have the 48 States. Still he hasn't heard one European this month, but he's heard a few Ws and SA's. Still he hasn't carried out his earlier statement that he would not listen on 7 Mc. except that he'd pop them in now and again for short periods. And of last month two new ones heard on 7 Mc. c.w. were V88OA and V51KB.

On 14 Mc. this month he's made nearly 500 contacts in daylight c.w. with some of the rarest being D4AW, K4K, K4L, K4R, K4T, K4U, DK1L, JZ2PK, W5A1N/KV4, PRAE, PY4ZQ, PY5AA, UPIAC, USAK, VIKMG, VK0AT, YV-5FH, SMCBK, SMCUC, SMFES, KHLJ7/MM near the Panama Canal.

There's no such thing Eric, always glad to hear from you about your doings, etc.

One from Dave Jenkins: It's a long time since we have heard from him and he reports that he hasn't been doing particularly much of listening in the a.w.r.s. but does manage to pop in for a few hours DX each week or so to time. He has heard quite a string of 50 mc. w.c. Europeans during February because of S615 and 0545 our time. Due to power supply trouble, he has been doing little listening this month. He has a 1000 watt 10 Mc. in his month's DX page. Dave's rx is a two-tube converter feeding into No. 22 rx at about 2 Mc. Antenna is a long wire with one end hooked to a barbed wire fence, so it might be ten miles long! He had no luck with the South American contest, never heard even one, QTH N.D.G.

Here is a bit of news from Don Graytey who reports: "Had a good trip back home, a trifile slow. The weekend was too busy, spent both Saturday and Sunday at home, rather out to Croydon Park, not even having time to see Mac, then over to Ian's and on to Carrum where we stayed the night, returning home about 1 p.m. Sunday. Did some local visiting on Sunday p.m. Monday am. visited my old pal VK3OO at St. Albans, then over to Treb's for afternoon tea and a yap. And we yapped. Treb is in favour of a single group, and will address the boys any time he can." Unfortunately he was unable to have any more time with me, but plans to get down again by himself in the not-too-distant future.

Now back there, all is well, he's in business again and the A.R.F. is doing very well. He has full coverage on 20, 15 and 10 m. The 10 m box is handspread and from 150 to 330 on the dial covers from 14 to 14.4 Mc. The general impression of this particular A.R.F. is that it is fairly good, being fortunately free of interference and 26 Mc. which is a plus point. Gain is good, though the whole thing is fairly stable. To sort out his QSLs, he uses several small clips and keeps the cards hanging on these, one for each of the following Bureaux: VK3, VK3/2, L3, L3/2, R3, J.A.R.L., W3CTI (with whom he has an arrangement now via Treb), and another for direct QSLs.

Don has an idea, which if it could be done, would be of great assistance to our members and to those of other States. That is the printing and selling of a.s.w.l. cards, designed by the Club, so that the know what he is doing and made available to members at a reasonable cost. It would do three things, firstly make sure good reports went out; secondly, would swell the profits a bit, and finally lessen the expense for those of us who have to get them. I think he would require at least 2,000 per year, as the new Americans arrive, and he is sure there are many others who would use large amounts.

## OVERSEAS S.W.L.s.

The monthly mail bag hopefully contains some letters from overseas listeners, some enquiring about our non-existent awards, others wanting information on listening in this country, but whatever the differences in the letters, they are all unanimous on one point—the Australian Amateur is very lax in his sending of listener reports. This may be the case, but I have a feeling that most of these chaps are at fault themselves. Some of the reports I have seen are a disgrace to the hobby, more so than some of the American QSL cards I have received. I am sure that the majority of stations here in Australia are, on the whole, building a good reputation for the quality of our reports: keep it up chaps and maybe as our cards go overseas, there will be noted and commented on to encourage others who may be, will catch on. Personally, I am not complacent with the Australian Amateur as far as QSLing is concerned. I have had an extremely high percentage of returns from our Ham and DX contests in countries in many of them are most helpful, considerate and encouraging. There are a few snags about, but they are better forgotten, the average chap will help us along our not-so-easy way.

## THE DX

The DX Century Club or DXCC is becoming rather common these days, there are several about for the listener, but for the sake of simplicity, I will quote from the latest issue of rules on the subject: "This award is made available to members of the above club, who have received confirmations from 100 countries of the world." As simple as that, but the stipulation in case of the U.S.W.L. is that the applicant must be a member of that League. Other clubs have their own rules, and it should be noted that the proposed VK awards have provision for DXCC to W.I.A., a.w.r.s., P.R.A.C. and the like. The various versions of the address in 27 Barrengeen Rd., London, enclosed 21/- sterling for membership, and cards of this nature are issued free. Check list endorsed by the W.L.A. is necessary, and cards are not to be sent.

## THE SWL

Nothing really important to report this month. DX33 is a pirate VHFRC should be on from Pitcairn Island by the time this reaches you. FG7XCC cards outstanding from this fellow can be obtained from W5GJY who has the log book for Jan. to April 1954. POMAC: G5G, G5G/WC, ASH/2, ASH/3, ASH/4, ASH/5, ASH/6, ASH/7, ASH/8, ASH/9, ASH/10, ASH/11, ASH/12, ASH/13, ASH/14, ASH/15, ASH/16, ASH/17, ASH/18, ASH/19, ASH/20, ASH/21, ASH/22, ASH/23, ASH/24, ASH/25, ASH/26, ASH/27, ASH/28, ASH/29, ASH/30, ASH/31, ASH/32, ASH/33, ASH/34, ASH/35, ASH/36, ASH/37, ASH/38, ASH/39, ASH/40, ASH/41, ASH/42, ASH/43, ASH/44, ASH/45, ASH/46, ASH/47, ASH/48, ASH/49, ASH/50, ASH/51, ASH/52, ASH/53, ASH/54, ASH/55, ASH/56, ASH/57, ASH/58, ASH/59, ASH/60, ASH/61, ASH/62, ASH/63, ASH/64, ASH/65, ASH/66, ASH/67, ASH/68, ASH/69, ASH/70, ASH/71, ASH/72, ASH/73, ASH/74, ASH/75, ASH/76, ASH/77, ASH/78, ASH/79, ASH/80, ASH/81, ASH/82, ASH/83, ASH/84, ASH/85, ASH/86, ASH/87, ASH/88, ASH/89, ASH/90, ASH/91, ASH/92, ASH/93, ASH/94, ASH/95, ASH/96, ASH/97, ASH/98, ASH/99, ASH/100, ASH/101, ASH/102, ASH/103, ASH/104, ASH/105, ASH/106, ASH/107, ASH/108, ASH/109, ASH/110, ASH/111, ASH/112, ASH/113, ASH/114, ASH/115, ASH/116, ASH/117, ASH/118, ASH/119, ASH/120, ASH/121, 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## NEW SOUTH WALES

Falling on the eve of the Anzac Day holiday weekend, the April meeting of the Divisional Council was opened at once by full members who were in attendance. The attendance totalled 44 and included Eddie VK5SW from Darwin.

Those who failed to attend missed an excellent lecture by Joe VK5LR on High Frequency Direction Finding. In his whimsical manner, Joe spoke of the early experiments in wireless direction finding and traced the development of D/F through the years. The systems which Joe described for Amateur use are simple to build and effective in use. The lecture notes on the subject and the tape direct to Joe and 30 mm. slides of the diagrams are also available at 10/- per set.

The country Amateur Radio Clubs in VK5 are continuing to increase both in activity and numbers. Best of all, club news came this month from the Griffith Amateur Radio Club. In this club is high with members travelling scores of miles to attend meetings. The A.O.C.F. class which the club is conducting has attracted a housewife (Mrs. Leaver) and her friend residing in the town twelve miles to attend the classes. Congratulations, Mrs. Leaver, and your son.

Wal 2AXH celebrated his 75th birthday on March 5. May Readers are reminded that Wal was the first Secretary of the Wireless Institute when it was formed in Sydney 40 years ago. The Divisional Council extends congratulations and best wishes to our senior member.

The various sub-committees of the Division are settled in and are working hard at their respective tasks. The VK5 Division is assuming gigantic proportions and Council is eager for volunteers to assist in the multifarious tasks involved in the management of the Division. Can you help?

### HUNTER BRANCH

No doubt by now all those naughty boys who have been causing t.v.l. have suppressed their unwanted harmonics (at least those who attended the lectures by Hans 2A9N at our last monthly meeting). Police have represented themselves to tell me that they have instructed the filters quoted by Hans and their installation caused much satisfaction all round.

Those present were 2RJ, 2ALM, 2CS, 2ANG, 2EHN, 2LL, 2SMO, 2ZDF, 2ZNW, 2XT, 2PF, 2VU, 2CN, 2RR, 2JK, 2SF, 2AFR, 2QRF and associates. President, Stobie, 2A9R, was present. Jim Dunn, Fred 2A9P, Arnold, Daley and Webster. Harry 2AFA sent his apologies. Must be too wet up Singleton way as Geoff 2VU is an all too infrequent visitor. Did you notice that your President, Lionel, had joined the skilled antenna-puffers and not the Water Board type either?

To relieve the responsibility of operating 2AXW on Monday nights a roster is being drawn up. 2SF and 2A9R have joined the panel, but I am not surprised. Eddie, 2CS, does not appear on my list will no doubt as there will be nothing to re-broadcast and even if there was, there would be no one able to receive same. The meeting concluded when your V.P. Varney thanked Hans for his constructive and informative discussion.

At present your Secretary, Gordon, is on holidays in Sydney whilst Liaison Officer, Stuart, thumbed a ride to Melbourne—hope someone warned them. They tell me the reason why Les 2RJ is not on so much these days is because he is busy building a home incorporating a radio course.

Despite the publicity there was a very poor turnout of the social meeting to deal with Blackalls—will have to do better than that boys—the willing few need help, support and ideas. And then we get a surprise from Jack 2ALM who can be called 2A9XK. As usual 2XT, "Bring-'em-back-ahill Bill," did himself proud at Urunga, came second in the scramble and won the Jerry Challenger trophy with Ernide 2PF as navigator. Urunga was certainly a can and everyone what was wrong with his notes until he discovered that his married daughter had hung wet nappies on his feeders.

Ivan 2ALM and his retinue called in at 2A9R on his way back from Urunga and made his mouth water with the activity up there. No need to ask who won the lucky ticket—in there, Eddie! Was the question going to Urunga next year? but find that Easter Saturday is April Fool's Day and with that mob up there, anything is liable to happen.

Many of you probably remember that a.w.l., "Key-Hole Harry," well, he now has a ticket, 2CCK, courtesy of the W.I.A. Very sorry to read in the "A.R." that Don Knock VK5NO is listed in the cancelled call sign.

Next meeting, chaps, is at the usual place, same time, and the date—June 10. See you there?

## VICTORIA MOBILE AND CONVENTION SECTION

Red Riding Hood may have said "What a big mouth you have Grandmama!" and run away with her under different circumstances to that related in the old fable. Like the heroine I am suffering a comparable fate for having opened the aforementioned item at a recent VK3 meeting and henceforth your Divisional Council come from the extremely sketchy part of M.Z.

I'm not complaining, mind you, but like the press at the "Chronicle," I can only make an "impression" if I am fed with paper—paper containing information, ideas, criticism or even downright libel!

Not that I want to conduct a lonely heart's column—far from it—but I can only reflect the general feeling of Amateur Radio, its development and progress through you or your Z.M.Z.

You know, one thing that's struck me since I have been able to attend a couple of meetings here in the city is the grim determination of your Divisional Officers to really get things moving in VK3 despite what can be called lethargy on the part of some country members to state their case.

This piece has been stated, printed and undoubtedly prayed, many, many times, but I suppose that you are all aware of the history of the Institute, particularly if you have some latent interest, you need to become browned off. I know, I lived in the country!

Your Council is young, enthusiastic and has ideas of its own. Your Editor has plans, your Z.W.I. script writer has plans—in fact every Z.W.I. who is destined to be another Amateur Radio in VK3.

So then, if you want to know what goes on, listen to 3WI and if his of sufficient importance to be repeated in print, it will be done.

Incidentally, what have you been thinking of the broadcast lately? 2AJK writes the script as you know, and is like a small boy waiting for Xmas Eve. He wants you to let him know how it's affecting you.

### GENERAL AND PERSONAL

You know, Angus 2VY is a staunch adherent of a.s.b. He must have felt like a missionary coming to us to try to turn the other eight of us to the May meeting. Fortunately, Angus' report on the virtues of a.s.b. v. a.m. was presented at the beginning of the evening, otherwise the bleary eyed combatants would be in even poorer shape. General business began as is now common knowledge.

However, back to the a.s.b. Angus rather deliberately, I thought, pointed out the obvious advantages of sideband at great length, and very ably presented the technical details of his argument in such a manner as to impress us that described in a recent issue of "QST."

The best was yet to come, when Angu had dealt with the technical queries, the slumbering and otherwise occupied c.w. and a.m. men were jolted to awareness by a combination of a.s.b. and a.m. questions. Essentially the verbiage dealt with the problem of "splatter" caused by s.s.b. stations as received on a normal a.m. receiver and why couldn't, or rather, why should s.s.b. stations be allowed to exist as an alternative to hand usage for a.m. stations. The majority, etc.

The ensuing roar was possibly like the state of affairs on 40 mhz when the AC4 came on, and from the confusion snatches of the Amateur's Code could be heard, viz the Amateur is balanced sheet to his neighbour, to which the question came that the power was bashed. Quite a negative approach to the problem, I think, but I'm not surprised.

They were still at it at the break before general business, and whilst inspection of 2VY's transmitter was in progress.

General business was of necessity, brief, but the problem of QSL distribution was raised and deferred until next meeting. Strong words were used here too, but final revelations will have to wait until next meeting. However, it can be seen that the question of the present system of a Federal QSL Bureau is satisfactory or not. It was pointed out that there is no collective Bureau as such in U.S.A. and QSL go to each Call Division. Perhaps this may be the answer to the problem here in VK3. Comments for and against will be welcome before the next meeting.

We were pleased to welcome Jack Cummings from the Army Apprentices School, together with one of the lads from Balcombe. Visitors are always welcome and if you are not a member continue to attend future meetings, everybody will be assured of a pleasant evening. XYL note—the OM will be late.

A note about the W.I.A. building in Victoria Parade. Repairs have been found necessary

report has it that earth tremors had something to do with it, although the source of the tremor wasn't stated. Anyway, tender for the job has been accepted and we look forward to having the rooms in fine shape once again.

Secondly, individual applications have been made about disposal. Firstly, the administration of R.A.A.F. disposals has shifted from VK3 to VK1. Perhaps this is why it is alleged that VK3 chaps are getting equipment we are not.

For my own part I would like to suggest that a Committee be formed to set up financial allocations to the States could be made. There would be difficulties, to be sure, but if it would give equality the necessary machinery would not prove too difficult.

Secondly, the Disposals Committee in VK3 comprises 3WI and 2TJ. At the present time these two chaps are gathering quite a good selection and it is hoped to make an official handbook in about three months.

### MEMORIAL

Starting from next month it is hoped that an above or mechanical-type of article that appears in the latest magazine received by this Division will be included in these columns or elsewhere in the magazine.

The advantages of this are obvious. If the tenor of an article appeals to you, the obvious thing to do is to drop me or Mrs. Forbes a line and it will be available. It is not for me to say. Of course the usual conditions of borrowing apply! At the same time I hope to give you a partial list of magazines received, and reference books in the library.

### EDUCATIONAL EVENTS

It is hoped that a report of the work of the VK3 Council will be a regular feature of these notes from now on. Under the chairmanship of President David Wardlaw, Council has one of its liveliest discussions on a number of topics at its last meeting.

The most important matter raised was, of course, the Federal Council meeting at Easter. Council heard a detailed report from Federal Councillor, Alan Elliot.

As you know, VK5 moved: "That it will be Federal policy of the Wireless Institute of Australasia to press for an administrative system which embodies the principle that frequency allocations and regulations are made by the recommendation of an independent disinterested body or tribunal before which interested persons or bodies shall have the right of public hearing before any decision or recommendation is made that affects them."

This was one of the motions carried by Federal Council, and some steps will be taken by the various Divisions in due course. In view of the importance of the matter, VK3 Council has appointed a sub-committee to advise on the problems involved. Michael Owen was appointed chairman.

Another sub-committee was appointed to report on methods of improving the attractiveness of the Institute. One proposal that the sub-committee is expected to consider is a proposal that a new improved technical library should be set up.

Council recommended the reappointment of the present Federal Executive for another year, namely, President G. M. Hall, W. T. S. Mitchell, G. Glover, D. Rankin, P. Strangairn and B. Beas.

Council also discussed the next State Convention, which will probably be held in November. W.I.C.E.N., including the possibility of incorporating v.h.f.; and as well discussed finances at considerable length.

Hardly surprisingly it was quite late when Council eventually adjourned.

### MELBOURNE UNIVERSITY AMATEUR RADIO CLUB

Produced only recently, this group looks like producing some excellent magazine material if not the ultimate in expert works. For how could it miss out with characters like Prof. ZL2Z and VK5LJ on the committee! I understand that Ron SAUB was also co-opted to complete the quorum. ZL1S had better look to it and provide me with some information from time to time, otherwise I'll reveal some of his schoolboy scandals!

### IN CONCLUSION

My high flying spurs tell me that all sorts of conversations, complete with topics, take place on the bands these days! I only suggest that these chaps who indulge in insurance and h.p. companies, etc., be a little more modest in their door step. Then there'll be some scatter and it won't be far!

Having thus exhausted the space I look forward to hearing your news and views for next month. Yrs, 2EJ.

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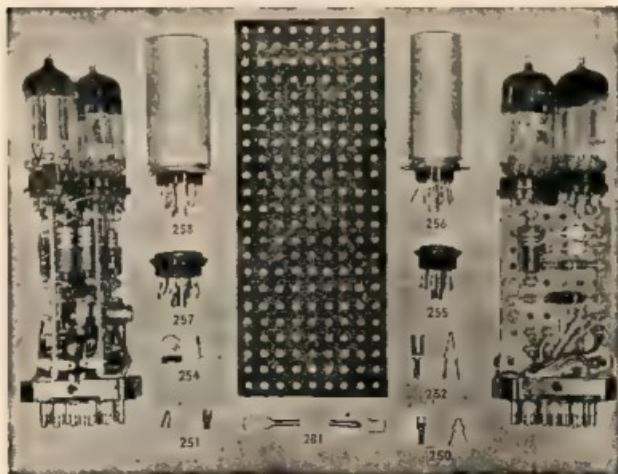
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## QUEENSLAND

### BRISBANE AND DISTRICT

Activity in Brisbane seems to be on the up-surge and one thing really deserves mention. In the early post-war days it was unusual to see the men of the local clubs working to pack disposal gear. Well, the date 1st May, 1946, deserves a special mark on the calendar because we had a "working bee" at the QTH of Fred 4VB to pack all the tubes which were ordered by our members from the United States and Canada and sent from South Australia. At 8.30 a.m. the blokes who volunteered to pack the tubes arrived at the QTH at Seven Hills and got to work unpacking and sorting the contents of six huge cases. We had 1000 sets of tubes, Fred 4VB, Bill 4VS, Graham 4LW, Associate Peter Brown and your scribe working like steam opening the cases and sorting a couple of thousand tubes.

It wasn't as easy as that; the tubes had to be removed from their original numbers and listed. Commercial EL, KTW and "letters like" numbers and, finally, to American numbers. Then we took the lists you had sent in and got 'em into stocks which were packed by Stan and Eric.

A humorous point about the tubes concerns the 6L6s which were advertised in "QTC": if you ordered any of these Magic Eyes, you've had it, because the CV number for 6L6 ends in 88A and the tubes supplied end in 99 only. These are cut-back triodes which have 6.5 volt filaments which take 4.8 amps, have a maximum anode voltage of 25,000 volts, have a plate dissipation of 750 watts and have a water cooled anode. I don't think they could be used at reduced ratings for radio inputs. We have heard discussions that a mistake had been made and the tubes will possibly be shipped back. There are still plenty of tubes left at 15 for \$1 or singly at one and six each, and we will give you the details in "QTC".

I guess you have seen those maddening crossword puzzles in the morning paper which for a sack and a correct entry can win you thousands of quid. Bill 4ZBU and his XYL, sent in many entries and one of them won them £7.50. Congratulations, Bill and Lyndall. You have probably seen the advertisements for the "Keween Apache" and you may well thought what a beautiful looking job it is. Well, Charlie 4RQ has an "Apache" and the same company's sideband adaptor in near to complete state and I can tell you that they look great. It is a real beauty. They are in panel view. He is getting the matching rx and will be one of the State's top DX men before very long. I think he has worked over 100 countries in the few months he has been active.

Fred 4VB has a beautiful rx now which comes from across the Atlantic from the Heath factory. It is the Italian Geloso Receiver which costs well over a hundred notes and it is a tonic to hear it put through its paces.

Well, that's it for now; see you again next month. 73 from 4PK.

### TOWNSVILLE

Band conditions being what they are, it is difficult to find sufficient news to have quite lengthy notes, so can only a brief summary of what I hear most change is doing through very patient listening on the various bands. Heard recently on 10 mx that the two west-end twins, Eric and Len, contemplating opening a shop in the city after being successful with try 44 Me. This would make the Zs happy if the project is carried through to fruition. Eric seems partial to metal craft (less risk of breakage).

Very sorry to report Bob 4TK is an inmate of local hospital with eye trouble and on a visit before the operation seemed in good spirits and was quite pleased to have the visits from the local boys in person; quite different to hear them except over the other waves. Bert 4LJ has a house now ready to move into the Tabelands and took the opportunity of meeting the various chaps and was unable to bring back that beaut. rx from Atherton. Reports all the gang are doing well and the place is a picture of prosperity. "QTC" from W.A. W.L.A. Just wish boys till our new Secretary settles in. Stan has given his word that the country boys will find no complaint hereafter!

Claude 4UX expressing great confidence that when the time comes he will be able to get 100 per cent in getting their tickets. Believe he was dumbfounded when one of the class members asked how was it he was heard on a local TV set (You beaut!). Saw John 4DK recently. He hoped to suffice the shack in the house and take a little well earned relaxation and work the nets again. Bob 4MF toying with the idea of s.a.b. and reduced his Quad to one band operation. Very happy to report since Brenda's visit. Ted 4EJ has sport-

ed a new fence, apparently no more fishing the chains being used on the fence, frosting the newly formed road. The Sydney gang please note, and no rude remarks.

Believe that at long last Jim 4DH has returned to the QTH, he must be old age and like me, he needs a little strenuous hobby work to keep him fit. Well, the date 1st May, 1946, deserves a special mark on the calendar because we had a "working bee" at the QTH of Fred 4VB to pack all the tubes which were ordered by our members from the United States and Canada and sent from South Australia. At 8.30 a.m. the blokes who volunteered to pack the tubes arrived at the QTH at Seven Hills and got to work unpacking and sorting the contents of six huge cases. We had 1000 sets of tubes, Fred 4VB, Bill 4VS, Graham 4LW, Associate Peter Brown and your scribe working like steam opening the cases and sorting a couple of thousand tubes.

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Again during Easter week-end the 50 Mc. band opened while I was away and Charlie 4ZBM heard 2A1 on c.w. and 2A1 on 7.15 p.m. A.E.S.T. he heard ZC4 calling ZS1AA on c.w. but got smothered by JA signals and he could not make the grade, and from 7.45 p.m. to 10.15 p.m. heard K6HGP/XHS working VK3. Also in the same period he was on phone with them but could not understand them. At 10.15 p.m. heard two chaps speaking rapid Spanish, which I believe were HCF1S (I thought they were an image on my rx, Charlie). On 23rd Bill 4ZBE worked K6HGP on Okinawa. I also heard him on 2A1 and ZD4Q. Jim verified his contact with K6S when I spoke to him on 21 Mc. KLB/TBW provided at Guam on 50 Mc. though no break through to VK as yet.

On Saturday, 30th, 11.30 p.m., managed to mag 8N100 in Nepal on 21 Mc. for his first VKAT--42 Bob.

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### SOUTH AUSTRALIA

Listed in the hierarchy of the VK6 Division you will find one Warwickshire herbivorous Parsons, a character who has, for some years been Publicity Officer, and, but for a brief interval, has been, and still is, our scribe. Just how he has scribbled is probably too well known to you all. Now, if you don't already know it, this works for a living! At least he is assumable. It is gathered that it is so, in fact it must be, because as this is written that gentleman is on annual leave, and we all know that it is only the unemployed who do not enjoy an annual leave.

Now having deduced that he works (or pretends himself for employment)--we have no guarantees of which) it is to be assumed that he is paid for it, so the big mystery is what does he do with the enormous amount money he placed in his hot fat little safe each week?

I'll let you into the secret, just in case you missed the Easter Sunday Dimensional Broadcast Poor Friday is (unfinancial--hah!) paid his current expenses, but just as you can't afford to attend meetings, cannot write these notes, his weekly publicity via the local paper is "pro SPBS" cannot throw spanners at meetings. In fact this was never more evident than the night of the recent Channel 5 tv station for a look-see. Mr. Parrot for his wasn't game to show up and have gimlet eye Lloyd throw him out.

Bad luck old man, we are taking the hat around and hope it will be fixed soon, the sub--not too bad.

I wonder how many members of our Division know how the various jobs done by Council members and superumeraries are allotted, determined, undertaken, or just plain done. Not many, I'll bet, but just as there is a slight administration to learn for the first time.

After Council is elected by the membership, that august body meets and from its midst elects a President who for the last decade or so has been the Senior Vice-President of the previous year. The reason for this is there are many committees, special duties and offices to fill, and if all the new Council are present at this first meeting it has been found hard to fill all these posts. But let a couple be away from us and the President can trot round for all for the absences by some mysterious means fill all of the unwanted and difficult roles. It is nice of them to be volunteer, otherwise we would never get started.

After getting voted in, to any post is easy, all you have to do is catch that President's eye, in other words be too slow to avoid him and his gimlet eye, and you are for it. Oh no, you are not forced into any job, it's all caught on by this eager volunteer method. Hence the carefree easy way all tasks are performed.

It behoves more members to seek Council election for until you have a turn at it, you do not realise the pleasure you can get from

this aspect of our hobby, that is, by doing something for it and for the common good of the other members similarly interested.

The visit we did to Channel 5 tv. station in North Adelaide constituted the monthly meeting, which was attended by the largest assembly of members seen for twelve months.

We are most grateful to John Bachelor and hisbenchmen who conducted the many tours over the station and for the painstaking way in which they explained the many complex functions of a modern day of electronic gear that left most spellbound. From the Z station, which is manned by enthusiasts, all young men, in whom the future of the industry must rest. No doubt it takes young shoulders and minds to do the details of this new media.

President Lloyd 4OON on his own behalf of all those present thanked John for his patience in showing the party over and asked John to convey many thanks to the management for permitting such an invasion and also to the staff of the station who assisted in the conduct of the tour.

The "enduders" must have heaved a sigh of relief when the crowd disbursed for there was never so many questions answered by so few in such a short time.

Sunday morning at the post session call back, a number of queries are efficiently answered by operator Gordon 4XU, or anyone else on the hook if he doesn't know the answer, but when I ask an innocent question to him, and Paul replies, I'm really going to say something. Ever think how you get your name and activities into these notes? Fancy listeners, and listeners, and listeners and doesn't mind a trick to get in. I wonder if you can come on the air (by permission of course) to a fence in the hills somewhere near a race course) so he gets on his tricycle and puff his way to Gordon's and lets his verbiage play on there. Result? Utter confusion of young bobs.

Easter and April week-ends saw a renewal of activities on 7, when quite a few bobbed up again after a lags, including Brian 4EM who, it is now understood, is in new quarters and after four months with a switch "comes on the air" with his new-duty of committee man. Some portable activity by Lee 4AX and Lester 4LC at Victor Harbour provided some interludes down there and some activity from Pat 4SKM spurred them to flatten a battery or two.

Lance 4LZ busy getting his new rig going with a new Geloso exciter, in fact quite a bit re-building going on. Wonder why? One-eyed monster viewing may be. Ian 4ZK heard the others for the first time and was a man now back home and that he had sent (sent mind) you ma-in-law back to VK3--what a man. Anyway, some adjustments going on in that QTH and additions of another meter or two.

Elizabeth is fast steering the title from Happy Woodville for there appears new call signs almost each week from that Cinders City. They have now clubbed together (self defence maybe) and find it no trouble to round up the others for a meet-up. In fact if you listen carefully you will get that number in your hair at Elizabeth any time you like. A fine bunch of chaps who between them have the clues and certainly get their share of DX. They have now moved to a new shack, getting for that ideal QTH, try One Tree Hill. Tubby anyway with a new beam and tower he and Son 4SQ should be able to knock 'em down very easily. Tom 4CC after what seems only a few weeks operating, so what's wrong with present address?

Ken 4HS is on holidays at time of writing. Cyril 4HY very busy building a plumber's desk, and Harry 4EY is now working on a re-arranged shack in a new shack. SKD is not seen only sometimes, very busy on the study these days, with SDA threatening to come on any time now. Ron 4FY is finding gardening an all absorbing pastime (so they say) with not much spare time for the shack. He has been working on Ron, 5 mx to the North and he is in it, your pal awaits. SEJ on 40 also in a new shack, he peasants at Elizabeth by the sound of things.

Tony 4AQ has now finished his mobile rig and after getting out on the road it is very commanding in the trusty vehicle. Many people try out these kind of things with someone really close in, but not Tom. A KHS aided him in the test and adjustment!

Our dear friend Tom 4CC is still using his law, finally found his dial was slipping and requested advice as to correction. Gordon and a few of us who were quite concerned with the prospect of Tom's dial staying slipped off at all times, finally franklin collected a few numbers of plastic sunshades and the like when it resolved itself, that the dial was on the rx.

There quite a few told him what to do with the dial--so easy if you know the real answer. Anyway, apart from that he is having great

fun with a 22 on the front lawn using a rod antenna which is available for fishing if the conditions are bad.

Did you hear the truth of Luke SLL and the car that backed into his front-end? A little bird tried to tell me but got mixed up with QSLs as far as is known. Luke was not hurt beyond his dignity. Glad I wasn't the backing driver!

Bob SFL joined in the mœuses last week when conditions were medium only and was the strongest on the air; interesting and Bob has a 2400 watt transmitter.

Country members please note that Ian SQX is on the air each Thursday night at 7.30 p.m., 46 mHz, to take any queries from you; he is the membership organiser on the Council this year and there's help out there.

Just in case the v.h.f. boys miss this for the Macquarie, is putting a tape signal on the air nightly from 1850 to 1900 C.S.T. on 50.19 Mc. With you in the driver's seat.

Mr. Gemmell reports that at a recent meeting Bob Testar came to light with a picture of a multi-element t.v. antenna with the query how it is fed. The answers ranged from eye dropper, spoon, feed to 30 cm ribbon.

Erg SKU too had an opportunity to feed in antenna answers, so the boys had it instead. Stewart SMS has forsaken the axe for work, much safer; Leo SGJ now has the tower to bits and had to re-assemble. Claude SCH and Tom Freggall on 40 to good result, not forgetting Col SCJ who helps himself to sponge cake and 40 mHz.

A film evening organised by Oliver Maddex and Claude SCH provided real interest on the manufacture (radio) not watered down the news like some of the other meetings. Meeting Doc SMD who with party was en route to Canberra, dropped in on the boys, much to their delight.

Erg SKU had trouble with the rig after a spud from it to find each section progressively locking up. Erg, nothing else.

As a closing shot, the automobile accident had a calming influence on only one part of the body, namely the right foot, hence there is less kick available from that side. Were strenuous efforts made to learn the correct and effective use of the left foot for salutary gestures by that member, so it won't be long now. Anyway, it would not need very good aim to make certain of a direct hit on Pansy, so maybe we will try it out even at this stage of education.

## WESTERN AUSTRALIA

The Annual General Meeting of the Institute, which was held on 19th April, brought the annual attendance of the Members at Perth South Perth.

At this meeting a change of constitution of this Division was carried unanimously, and now means that anyone who has an interest in radio and electronics can join the Institute or an associate of the subscriber rate of 2/- per annum. This is what we have long waited for and we already have fourteen (14) s.w.l. members waiting to join.

Copies of the Constitution will be forwarded to each member for their retention.

After the meeting the Committee GHR and the QSL Manager GRU tendered their reports. GHR was very pleased to report that membership had grown to 137 and the circulation of "ARM" had increased to 182 during his two years as editor. Through the past two years articles given by the R.A.F. Association, E. Hilliard IBM on Electronic Calculators, JJS on Travels through world cities, EAG Questions and Answers, GLS on three channel carrier telephone, and G.O. Lance Howard, D.F.C., on the D.C. Radios.

Jim SHU reported that there were not as many cards passed through the Bureau as at the previous year which was a record year. The assets of the Bureau stood at stickers totalling \$1000 and stamp booklet 24/11. This is a good way to start the year, but on behalf of all the members I feel sure I can congratulate Lou and Jim on the splendid job they have done during the past year, and also the complete refiling of Cards for the part they have played in helping the writers to pass under the bridge smoothly, and quite a volume has passed this last 12 months.

It looks as though the VK6 Division will at last have their own building to be used by the members for meetings, dinners and conducting meetings, etc. Thanks to Cole G6K.

The Federal Councillor went to Melbourne on Easter Saturday to attend the Federal Council at which frequency allocations were discussed and agreed to.

A Memorial to the Silent Keys of the VK6 Division has been constructed by SAG and GWS to be displayed in a prominent position. The cards to hand at present are SF, Fred

## OBITUARY

### BERTIE CONGDON—VK6BC

It is with regret that we have to advise of the passing of VK6BC, Bertie Congdon. Many an Amateur of VK6 ever debt of gratitude to Bertie for the enthusiasm that was always applied in the imparting of the necessary knowledge to achieve the A.O.C.P. He founded the Subiaco Radio Society, the first Radio Club in Australia, and saw it grow and flourish until it became the largest of W.A. Bert saw service in the First World War which left him with an impairment in his health. But even in World War II he conducted more classes tirelessly.

Bert almost blind by middle life, in the Post War period did extensive work of ages ago. Even then he was never idle, and only a week before his death he was heard on the air.

Sincere sympathy is extended to his wife, children and grandchildren.

Kemble: GMW, W. Weston; GMN, S. J. Madden; GMF, Fredrik; GMG, L. L. Lamphier; GMH, A. F. Stevens; GMJ, L. Trumfull; GMK, J. Goddard; GMK, A. Rippen; GMQ, C. Hold. These Silent Keys have left behind them many friends who remember them and what they did for Amateur Radio. It was suggested by GMG that a memorial to have a plaque placed on the board, would be kindly forward it to him (GMJ—what did you say QRM, QRN, etc., very bad).

Congratulations to Fred GUF on taking up his new home and congratulations to GUY. We all trust you that you both will be very happy and have long life together in harmony. Please don't forget Amateur Radio. Fred is building a very nice home out in Cannington and his three tall white masts are a very impressive sight.

Here we must reminisce for a moment for the other day GMQ was heard on 40 mHz. GMQ was, at one time, the official call sign of the Magnet Observatory at Waterloo. It is retained now by Alan Parks (two who had spent many years there) and is now participating in the remainder of nearly 20 years' association of the original Magnet Observatory. It is well that such historical calls should be carried on. Here we take the opportunity of welcoming GMQ to Troughton Island as a new member of the W.I.A.

The Easter weekend brought many parties and mobiles out, and it was sure was a lovely weekend for it. Among those heard were GMF, GMG, GMH, GMJ, GMK, GMQ, GMW, Herb EXO, John SEW, Cole GSC, Tom GTK, John GJM and Jack GBU.

Peter HPTCC/MM, aboard the tanker Alvenus, was heard on 80 mHz around the coast of W.A. on his way to the Eastern States. He was working on a repair boat. Tel. CHM, GCH, GCH, Wally GAD, Francis GWD, Skipper GWS and Pat GPH. Signals faded out both ways when Peter was off Esperance in the Eight, and we worked him again on the way back.

In conclusion, I would mention the Slow Morse. This will be starting (all going well) very soon, and the times will be for one hour after the News, Sundays, on 40 mHz, seven to eight p.m., on Sundays, Thursdays and Thursdays.

It is with great thanks that we thank the coming of Bert Congdon, SBC. Many VK6s owe their A.O.C.P. to Bert, to whom it was never any trouble when it came to helping anybody in Amateur Radio. —GPB.

## TASMANIA

Paul TPJ was instrumental in affording some of our members the opportunity to perform a valuable service to those unfortunate people who were affected by the terrible floods in the Derwent Valley over the Anzac Day weekend, and our gratitude is due to both Paul and the other helpers for helping to maintain morale of our inmates.

Chas TCH has returned to Derwent Valley and should now QRM Rupe TMH and Edgar TRY much more effectively. Ted T2J, our Federal Councillor, forfeited quite a deal of his Easter weekend to journey to Melbourne and attend the International Federal Council meeting held there at that time. Ted had intended to use the four-day break from work to continue his home renovations, so we can appreciate even more his readiness to attend this meeting at such short notice.

Myself TAIF is now the envy of many of us after receiving a QSL card from a VP3. I have not even heard one of these very rare DX stations. Jack UJB has got his G4ZU beam up

in the air on a 25 foot tower. His tests show locally a back to front reading varying by four 5 points. A little more adjustment to bring the 14 Mc. portion of the beam up to pitch, and Jack should do even better in DX contests in the future than he has done over the years.

The only VK Amateur to suffer damage or loss from our severe floods was John AGC. He tells me that three houses on his property at Bushy Park were flooded and that he lost about 80 sheep downstream.

Our May Divisional meeting was fortunate to have Mr. Hutchins, of the Marconi Co., address us on Television Studio Equipment. Not only did he illustrate the equipment diagrammatically, but he produced certain equipment exhibits and altogether it was a well received and most enjoyable lecture.

Tom TBT has again equipment capable of putting out a signal, so he should be heard much more frequently in future.

## HAMADS

1/- per line, minimum 3/-.

Advertisements under this heading will only be accepted from Institute Members who desire to display their equipment for sale or personal property. Copy must be received by 5th of the month, and remittance must accompany advertisement. Calculation of cost is based on an average of six words a line. Call signs are now permitted in Hamads. Dealers' advertisements not accepted in this column.

**FOR SALE:** Class C Wavemeter with xtal calib. and a.c. power supply, £14. V.h.f. Wavemeter TS159/TPX, 150 to 200 Mc., crystal calib., handbook, adjustable to 2 mx., £12. AR7 type dial, £6. Command Receiver, 3-6 Mc., £4. All units in excellent condition. A. Elliott, VK3AEI, 31 Fenton St., Ascot Vale, Melbourne. FU 1580.

**SELL:** Advance E2 Sig. Gen. 100 Kc., 100 Mc., as new. B28 Comm. Receiver, good cond., VK5KD, 95 Fairfield Rd., Elizabeth South, S.A.

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**SELL:** R1155A Communication Receiver, good condition, £12/10/- . Aegis KC4, 4-band Tuning Unit, a complete factory wired front-end; r.f., osc., mixer stages, bandspread 80, 40, 20, 15, 10; handset and bandspread 55/1 slow motion drive assemblies and calibrated dials; with values and circuit, £12/10/- . VK3ZCP.

**SELL:** Surplus equipment. Eddystone 630 receiver. ART13 transmitter with 28 volt power supply and manual. TA12 transmitter, FS6 transmitter, prop. pitch motor. What offers? N. Templeton, Colaraine, Vic.

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**WANTED:** Com. Receiver, good condition, AR7, AMRI101 or similar. Full details. B. W. Bartlett, VK4ZCG, 35 Woodville Place, Annerley, Brisbane.

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**ARTISTRY IN**



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The discovery of copper is veiled in mystery, for how primitive man could maintain sufficient heat long enough to smelt copper ore is hard to tell. Nevertheless, copper was discovered, soon followed by bronze, which was suitable for tools and weapons of war, Roman arms and armour being made almost entirely of it for most of the Roman era.

Iron was known over 3,000 years ago, but was not used widely until much later, when the peoples of Eastern Europe, the Caucasus Mountains and the shores of the Black Sea discovered a method of tempering. Gradually iron displaced bronze, until today it is the mainspring of our civilization.

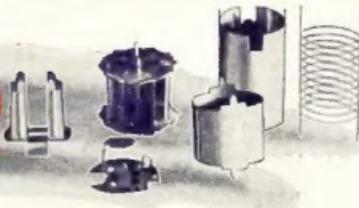
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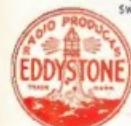




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